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CHAPTER 3: TYPOLOGY, CHRONOLOGY AND COMPARATIVE ANALYSIS

It is important to bear in mind that the majority of the well-preserved metal artefacts from Tell el-Dab'a come from graves, and thus comprise a highly skewed sample of material.

The term weapons is here applied to daggers, axes and spearheads. Other forms of weaponry such as archery equipment and sling-bolts are not found in funerary contexts at the site. This is not surprising however, as they seem to have played little part in the signalling of status messages in the culture of the MBA Levant (PHILIP 1989: 146; 1995a) generally.

3.1. AXES

3.1.1 Flat axes

Axe No. 3655 is an unstratified instance of the Lugged Asymmetrical axe, a form characteristic of the Eighteenth Dynasty, and perhaps of the New Kingdom as a whole (KCHNERT-EGGEBRECHT 1969: 39; DAVIES 1987: 53). These have a distinctive angled butt and would generally have been attached to a curving handle. The type is clearly Egyptian rather than west Asiatic, and is a simple variant of the extensive series of lugged flat axes with concave sides which constitute Typ G as defined by KCHNERT-EGGEBRECHT (1969). Most examples of this series are believed to represent tools, and the form was 'well established by the Thirteenth Dynasty and continued in use throughout the Second Intermediate Period' (DAVIES 1987: 49).

It has been suggested that these axes, which have relatively narrow cutting edges in comparison to their 'round' Middle Kingdom predecessors (DAVIES 1987: 23), represented an attempt to concentrate the force of impact onto a smaller area, perhaps in response to the greater availability of helmets or body armour during the second millennium BC. YADIN (1963: 60, 77) ascribed the development of the narrow-bladed axe in MBA western Asia as a response to this very requirement. It is possible therefore, that the narrow version of the lugged axe may represent a distinctive Egyptian response to the same problem. In contrast to the situation in western Asia, the Egyptian approach can be read as more conservative in that it involved the remodeling of a traditional axe-form, rather than the appearance of a wholly new design.

It is interesting to note that this piece represents

the sole instance of a flat axe of any type in the present catalogue. There is thus a clear discrepancy between the rarity of flat axes and the evidence of their production as represented by a number of moulds from Area F/I (see 4.2.2.3). One might initially suspect that the absence of flat axes generally could be attributed to a difference between utilitarian artefacts, which were prone to recycling, and a specific set of grave goods, which, as they were taken out of circulation through burial, would have had a far higher rate of survival (e.g. narrow-bladed axes). However, lugged axes of various forms are found widely in Middle Kingdom and Second Intermediate Period graves in both Egypt and Nubia (DAVIES 1987: 48 with references). This is however not the case at Tell el-Dab'a, where their absence among both the extensive range of Second Intermediate Period settlement and funerary contexts is striking. We must conclude that lugged flat axes of Egyptian design were not deemed appropriate for inclusion in Second Intermediate Period burial contexts in the Delta, and therefore that artefact styles were highly meaningful. The few published examples of lugged flat axes from Palestine are all attributed to Late Bronze Age contexts (MIRON 1992: nos. 325–330).

That said, it is interesting to note the presence of an axe of this type in the MBA Kharji tombs in Beirut (SAIDAH 1993–4: 186, pl. 2.1). In this case, the axe had never been sharpened, suggesting that its role in the funerary context was not that of a weapon, but as an item of imported exotica. The contrast between the presence of an Egyptian axe in Beirut and their complete absence from burials at Tell el-Dab'a, suggests that each instance represents a quite different understanding of the same category of artefact. The mundane Egyptian tool, while not deemed appropriate as a grave object in the Nile Delta, could, when transported to coastal Lebanon, acquire an enhanced status by virtue of its foreign origin. This highlights the critical point, which is often overlooked in studies of typology and chronology, that formal similarity does not imply unity of either meaning or practice. Not only does this find strengthen the evidence for connections between Egypt and parts of the northern Levant *other* than Byblos during the MBA, it also highlights the ways in which items of material culture could be

appropriated and assigned new meanings within different cultural settings.

3.1.2 Fenestrated axes

Fenestrated axes are socketed axes of semi-circular or half-ovoid form with two holes (fenestrations) in the blade. They are designed to fit a curved handle, which tapers from bottom to top. The socket is thus slimmer at the upper end than at the lower, perhaps to prevent the axe blade from slipping down the handle (MIRON 1992: 52–3). The use of a socket of elliptical rather than round section was presumably to prevent the blade working loose and rotating on the handle as a result of use.

Well-preserved examples, complete with handles, were found in graves at Baghouz in eastern Syria (DU BUISSON 1948: XLV) and more recently in MB IIA Grave 990 at Tell Kabri (KEMPINSKI 1989: 14, Ill. 3, fig. 14.2, pl. VI). Several distinct types can be identified, and a plot of Length versus Maximum Breadth reveals the existence of clusters corresponding to the different types of fenestrated axe (PHILIP 1989: 49–59; fig. 59a). When considered alongside the presence of two-piece moulds for axe production at centres such as Byblos (DUNAND 1939: 198 pl. CVIII no. 3069; DUNAND 1954–8: 96 pl. CLXXXIV, 7402), Ras Shamra (unpublished, Musée du Louvre, Antiquité Orientale no. 84.268) and Tell Mardikh (MATTHIAE *et al.* (eds.) 1995: 439), the existence of several distinct types as opposed to a more general continuum of formal variation, points to the acceptance of a set of basic design principles over a large geographical area.

Only one fenestrated axe has been reported from Tell el-Dab'a. The earliest well-stratified axe from the site, this example comes from F/I-o/19 Grave 8, a robbed, mudbrick-built chamber tomb assigned to stratum H (BIETAK 1991b: Abb. 3, Taf. 3–5; 1991c: 33). This axe belongs to the narrow or 'duckbill' type (PHILIP 1989: Fenestrated axe Type 1). Although many examples of these axes are known, there are few which can be dated closely, as most come from tombs which were either disturbed or had been re-used over a length period (PHILIP 1989: 50). However, the *floruit* of the type in Syria-Palestine should be placed within the MB IIA period, with production ending a little before the MB IIA/IIB transition (PHILIP 1989: 49–50; DEVER 1992: 8).

In Egypt, examples are shown in the hand of a figure depicted in wall paintings from the Twelfth Dynasty tomb of Khnumhotep at Beni Hasan (NEWBERRY 1893: pl. XXXI) generally dated to c. 1875 BC. Examples are also shown in the hand of a mounted figure in scenes from the mining site of Ser-

abit el-Khadim in the Sinai (GARDINER, PEET and CZERNY 1952: pl. 51.2 no. 163; 1955 no. 405, fig. 17). In both cases, axes of this style are associated with 'Asiatics'. While many scholars have identified the axe from the tomb of Khnumhotep as a narrow, fenestrated axe (YADIN 1963; OREN 1971; DEVER 1975: 30–1; PHILIP 1989: 49), BIETAK (1991c: 49) has argued that the paintings do not depict the artefacts with sufficient clarity to permit the identification of the exact type, and that it may represent a weapon of Egyptian type. While DEVER (1992: 8) has emphasized the curved handle, certainly a feature of fenestrated axes (PHILIP 1989: 49), curving handles were also employed on certain types of Egyptian axe (DAVIES 1987: 39), and cannot therefore be taken as a definite criterion for the identification of fenestrated axes. In fact, even if the axe were proved to represent a fenestrated example, all this tells us is that in the minds of Egyptian artists working in the nineteenth century BC, axes of this form were associated with Asiatics. This can hardly be doubted, as there is an array of archaeological data (PHILIP 1989: 49–50) which points to the use of narrow fenestrated axes throughout the Levant at this time.

The stratum H date for this axe would place it in the late Twelfth Dynasty (Table 1). Moreover, the presence of a number of ceramic vessels alongside the axe in the tomb would seem consistent with a relatively late date in the MB IIA period, as those fenestrated axes found in single graves deemed early in the MB IIA sequence in Syria-Palestine have generally come from deposits containing relatively few other finds (PHILIP 1995a: 142–3). Examples include the graves of the so-called 'Porteurs de torcs' at Ras Shamra (SCHAEFFER 1948), Tomb 92 at Beth Shan (OREN 1971), and Tel Rehov Grave 2 (YOGEV 1985). This trend is in keeping with HALLOTE's (1995: 110–2, figs. 6, 7) observation that grave goods as a whole appear to have become more plentiful as the MBA progressed.

Axes of this type are common in the Levant, but are also reported in smaller numbers in north Syria, central Anatolia, north Mesopotamia, and in particular at sites with Syrian connections such as Kültepe (PHILIP 1989: 50–1). The general form extends to southern Mesopotamia and Iran, although the specific styles differ somewhat from those employed in the west (CALMEYER 1969: 44–5; TALLON 1987: 109–10; PHILIP 1989: 58–9). In light of their wide distribution throughout western Asia, it is therefore interesting that fenestrated axes appear foreign to Egyptian metalworking traditions (KÜHNERT-EGGEBRECHT 1969; DAVIES 1987), with examples unknown outside

the Nile Delta. Overall then, both the evidence of representational art, and the scarcity of the type in the Nile Valley, points to these axes as an item of material culture which, at least in Egypt, was regarded as having strong Asiatic associations.

However, two anchor axes, a form sometimes seen as a prototype for fenestrated axes, (PHILIP 1989: 55–56, Type 5) have been excavated in Egypt. One was found in a tomb at Helwan (SAAD 1947: 173, pl. 88) and was dated to the First Intermediate Period on the basis of the grave contents (letter from the excavator quoted in WARD 1971: 57, note 187). The other is from Abydos (PETRIE 1925: 6), but there is some dispute as to the tomb from which the axe originated (TUBB 1982: 2). There is, however, no evidence to suggest that these indicate the existence of a local production centre in Egypt, or that there is any continuity between the use of these objects and the fenestrated axe from Tell el-Dab'a. In fact, the presence of a mould for casting anchor axes at Byblos (DUNAND 1954–8: 20, fig. 17) might suggest that the two anchor axes found in Egypt were obtained via commercial or political links with the Levant.

3.1.3 Narrow-bladed axes

The axes here termed narrow-bladed, have a long, slender blade with a narrow cutting edge, suggesting a desire to produce a weapon which would have concentrated all the force of impact on a relatively small target area. This has led to suggestions that they were intended to penetrate armour, and metal helmets in particular (YADIN 1963: 60). The problem with this interpretation is the lack of convincing evidence for the widespread use of helmets in Syria-Palestine at this time.

Note that Types 1 and 2 as defined here, correspond to MIRON's (1992) Types I and II, while there is considerable overlap between Type 3 as defined here, and MIRON's Type III.

Type 1

Axes of Type 1 are widely distributed throughout the coastal Levant from Tell Sukas in Syria to Tell el-ʿAjjul in southern Palestine (PHILIP 1989: 37–9, 266–71; MIRON 1992: 73–4). While these axes are common on the Levantine coast, only one example has been reported from inland Syria, that from the tell at Hama, where it was found in a secondary context (FUGMANN 1958: fig. 161, no. 5E802, [for chemical analysis of this artefact see PHILIP 1991a: 98–9, table 1, fig. 4.11]). The distribution of moulds for the production of axes of this form at Megiddo (LAMON 1939: 148 Pl. 105), and Byblos (DUNAND 1954–8: 11,

pl. 184, no. 6794) – albeit from secondary contexts – is consistent with the distribution of axe finds, and supports a concentration in the coastal and southern Levant.

All securely dateable examples come from late MB IIA, or transitional MB IIA–B contexts (PHILIP 1989: 39). This is consistent with the pattern at Tell el-Dab'a, where strata G and F are equated by the excavator with late MB IIA and the transitional MB IIA–B respectively (BIETAK 2002: 41, fig. 15). It is worth making the point that no instances of narrow-bladed axes were reported by DUNAND (1954–8) from the 'Dépôts des Offrandes' at Byblos. However, the presence of nine such axes in MBA tombs at Kharji in Beirut (SAIDAH 1993–4: 186, pl. 2, 2–5, pl. 3) confirms their place in the metal repertory of coastal Lebanon. In light of the sheer quantity of weapons recovered from the 'Dépôts des Offrandes' at Byblos, the absence of narrow-bladed axes would suggest that the deposits were closed prior to the appearance of this particular axe-type, thus providing a potentially useful *terminus ante quem* for a notoriously difficult group of material.

Type 2

Axes of this type have blades which flare towards the cutting edge. With one exception (No. 4148), examples from Tell el-Dab'a have blades which are hexagonal in cross-section. In contrast, examples from sites in Palestine generally have blades of ovoid cross-section (PHILIP 1989: 40; see for example axes from Jericho and el-Gib [KENYON 1960: 313, fig. 117.6; PRITCHARD 1963: 138, fig. 51. 41]). The upper and lower margins of the sockets are generally straight, although in several cases they are higher towards the rear of the socket than at the front, and bear a moulded beading. Four vertical flanges or stops are located above and below, in front of and behind the socket, presumably to provide additional support for the haft, and perhaps acting as anchor points for a thong binding. The socket is always designed to take a handle of approximately oval cross-section, which is slightly rounded at the rear and pointed at the front. The presence of concave cutting edges on many examples is probably indicative of frequent sharpening.

Chronology

The Tell el-Dab'a corpus represents the single largest group of axes of this type from any site in the east Mediterranean. The earliest Type 2 axe, No. 1755, which appears in a stratum F grave, is also one of the

two examples of this axe-type at the site which is made from tin-bronze. Most other examples analyzed were made from unalloyed copper (see Chapter 4, Tables 17, 18). Examples span strata F to D/3; the absence of examples from stratum D/2 contexts may be attributable to the extensive looting of the graves of this, the latest, Second Intermediate Period stratum (BIETAK 1991c: 47). However, many tombs at Tell el-Dab'a had been disturbed to some extent, and it is clear that copper weapons appear to have been ignored by looters in some cases (in Area F/I for example, where many partially-robbled tombs still produced copper weapons). As a result, it is possible that the apparent decline in the use of battle-axes as grave goods towards the end of the Second Intermediate Period is, in fact, genuine (see 6.1.3).

An additional example from the Delta was recovered from a Second Intermediate Period tomb uncovered in the nineteenth century at Khatan'a on the western edge of Tell el-Dab'a (GRIFFITH 1890: 57, pl. XIX.27). This example is now in the British Museum and is one of two included in DAVIES' catalogue (1987: 54, nos. 167 and 168). The second piece is probably from a looted tomb, but its provenance is uncertain. Chemical analysis of these pieces confirms the infrequency of Type 2 axes in tin-bronze (DAVIES: 1987: 110, table 1a), as suggested by analysis of the Tell el-Dab'a axes (Chapter 4).

The distribution of Type 2 axes is more limited than that of Type 1. The former are restricted to locations in Palestine and the eastern Delta (PHILIP 1989: 271–5; MIRON 1992: 74–5). None are yet known from Syria, where a rather different form was preferred (see PHILIP 1989: 41–2). All well-dated parallels come from MB IIB/C contexts. Examples are known from Megiddo in northern Palestine, such as, for instance, Tomb 4110 which KENYON (1969: 31) would ascribe to her phase B (early MB IIB/C), and Khirbet Kufin Tomb 3 Chambers 6–7 upper stratum, which includes material of both MB IIA and early MB IIB/C date (GERSTENBLITH 1983: 34). Jericho has produced two examples from single burials (from tombs J3 and A134) which belong to KENYON's groups I and III respectively (although DEVER has suggested [1976: 24, note 36] that J3 should belong to groups III or IV). Another from Tell Far'ah (N) is from Tomb A, also of MB IIB/C date (DE VAUX and STEVE 1947, pl. 20.2:). Thus far, however, no Palestinian examples appear to come from contexts that can definitely be placed late in MB IIB/C, which is apparently consistent with the absence of such axes from stratum D/2 graves at Tell el-Dab'a. The type appears to represent a successor to the Type 1 axe discussed above, but

displays a rather more restricted geographical focus – Palestine and the Nile Delta only.

Type 3

In chronological terms these are broadly contemporaneous with axes of Type 2, (strata D/3 and E/1), and are probably a stylistic variation on the latter, reflecting a slightly different technique for securing the handle to the axe-head. In the case of A/II-n/15 Gr. 1, examples of both axe-types occur in the same grave.

Type 3 axes are relatively unusual, although examples occur in Syria, Palestine and the eastern Delta (PHILIP 1989: 275–6). MIRON (1992: 79) would distinguish between the Palestinian examples of this form and those from Ras Shamra. However, the present writer has seen the Syrian material at first hand, and is less convinced of the validity of this distinction (cf. examples in PHILIP [1989: fig. 3: nos. 414, 418 from Ras Shamra, no. 443 from Tell el-Dab'a, and no. 427 from Jericho]). The presence in the Delta of an axe-type which is relatively infrequent in the southern Levant, may hint at a Syrian connection which is presently little understood. For the moment, however, we have insufficient information to decide whether Type 3 axes represent a regional or chronological variation, or simply a variation on the usual hafting method.

Discussion

Narrow-bladed axes as a general form occur widely throughout western Asia during the earlier second millennium BC (BUCHHOLZ 1979; PHILIP 1989; 1991b: 80–3; 1995b). Specific forms tend to show more restricted geographical distributions however, with the Levantine examples representing just such regional variants. Examples from Isin-Larsa and Old Babylonian contexts in Mesopotamia exhibit rather longer and more substantial sockets than their Levantine counterparts (PHILIP 1995b: 127–9). These presumably resulted in a more secure mounting, obviating the need for the adoption of the additional measures which the relatively short sockets of the western variants would have required, such as the use of a notch or raised stops to secure the handle to the weapon-head. It is worth stating that the narrow-bladed axes from Tell el-Dab'a lie within the Syro-Palestinian, not the North Syrian/North Mesopotamian stylistic universe. Furthermore, the absence from Tell el-Dab'a of those forms of narrow-bladed axe most commonly seen in later MBA contexts at Ras Shamra and Cyprus (PHILIP 1989: 42, Type 4; 1991b: 80–3) emphasizes the specificity of the connections between the Delta and southern Palestine during the later Second Intermediate Period.

Evidence for the use of such axes comes from two sources. Two narrow penetration wounds on the skull of the seventeenth Dynasty Egyptian ruler Seqenenre, have been attributed to an axe of this type (BIETAK and STROUHAL 1974). In fact, these puncture wounds offer a striking contrast to a larger 'slash'-type wound identified on the king's forehead and may indeed indicate that such axes were designed for the direct puncturing of bone. Secondly from Tell el-Maskhuta in the Delta itself, the skulls of both a female interment, and the accompanying dog burial, both bear damage indicative of a forceful blow made with an axe of this form (HOLLADAY 1982: 45, figs. 72-4). This suggests that whatever their use in warfare, these axes may also have had a role in more ceremonial or ritualized activity, perhaps indicating that they held a degree of 'ideological' significance.

The lack of narrow-bladed axes from Egypt outside the Delta is also striking. Presumably their distribution was restricted to the area of longest and most effective Asiatic control, and these axes never acquired the symbolic value in Egypt that they appear to have had in the Syro-Palestinian world. The absence of socketed battle-axes from either seventeenth Dynasty graves or the so-called 'Pan Graves' where axes of traditional Egyptian types occur, is striking and suggests that whatever the social or cultural overtones of these weapons, these were not transferable to the societies of the Nile Valley.

Stratum	Fenestrated Axe	Narrow-bladed axe Type 1	Narrow-bladed axe Type 2	Narrow-bladed axe Type 3
H	1			
G/4-H				
G/4		2		
G/1-3				
F-G/1		1		
F		1	1	
E/3-F				
E/3				
E/2				
E/1-E/2			1	
E/1			1	1
D/3-E/1			5	1
D/3			1	

Table 2 Distribution of axe-types by stratum (artefacts from secure contexts only)

3.2 DAGGERS

The acceptance throughout the Levant around 2000 BC of a range of distinctive, and widely adopted daggers with decorated blades is probably attributable to the appearance of two-piece steatite moulds. The high heat-resistance and ease of cutting offered by steatite provided the possibility of the repeat production of metal items with quite elaborate surface detail, suggesting that stylistic developments were facilitated by new technological possibilities (PHILIP 1989: 175-6). For a discussion of steatite moulds from Tell el-Dab'a see 4.2.4.3.

3.2.1 The Levant and the Delta during the Middle Bronze Age

Daggers with central groove (PHILIP 1989, Type 12)

The majority of the most distinctive forms of daggers occurring during the Syro-Palestinian MBA are represented at Tell el-Dab'a. The earliest of such daggers at the site appears in F/I-o/20 Gr. 17, and is assigned to stratum H. This dagger has a blade bearing two pronounced ribs separated by a deep central groove, and belongs to PHILIP's (1989: 115-6) Type 12. It is the only example of this type thus far found at the site.

The form is present in early second millennium BC tombs at sites in inland Syria such as Hama Tomb G VI (FUGMAN 1958: fig. X), which contains pottery contemporary with Phase 'H' on the tell, and in MB I graves at Tell et-Tin (now known as Tell el-Bahr), located within Lake Qatina in the Orontes valley, near present-day Homs (GAUTIER 1895; PHILIP 1989: 435). There are also numerous examples in the 'Dépôts des Offrandes' at Byblos (DUNAND 1954-8: 302, nos. 9652-8, pl. LXVIII). An example from Chamber C of Lebe'a Tomb 1 in southern Lebanon is dated by associated material to MB IIA (GERSTENBLITH 1983: 43). Other good parallels exist in MB IIA Levantine 'warrior' graves such as Tomb 92 at Beth Shan (OREX 1971: 116, fig. 2.1) and Tomb 2 at Tell Rehov (YAGEV 1985: 93, fig. 4.2). Examples from Palestine have so far been restricted to northern areas only. More distant parallels come from a level Ia grave in the Karum at Kültepe (ÖZGÜÇ 1959: Abb. 72, fig. 71). Overall, this form can thus be securely dated to the MB IIA period, a date consistent with stratum H at Tell el-Dab'a.

The majority of daggers of this type appear to have borne crescent-shaped handles. As the example from Tell Rehov makes clear, this type of dagger was hafted via a long metal stem (broken in the Tell el-Dab'a example) which was inserted into a crescent-

shaped pommel. The stem would have been enclosed by a hand grip made of perishable materials such as wood or leather (see YOGEV 1985: fig. 4).

Daggers with ribbed blade (PHILIP 1989, Type 13)

These daggers have relatively broad blades bearing multiple ribs, which were clearly produced as part of the casting process. In some cases, additional lightly incised lines run longitudinally along the blade between the outermost pair of ribs. The tang, which bulges out immediately above the blade and continues as a long tapering extension — as on Nos 810 and 4128i — is seen on many, but not all, Type 13 daggers. The form of the tang makes it clear that these were hammered out after the blade had been cast. Presumably, the end of the tang was inserted into the socket at the base of the pommel (see 2.3). The two rivet holes arranged as a horizontal pair in the base of the tang, were presumably designed to secure the various components of an organic handgrip to the blade.

The type occurs widely across the Levant, with northern examples known from Byblos and Tell et-Tin, and many more from Palestine (PHILIP 1989: 117–8 for details). In recent years, an example has also been published from the Kharji tombs in Beirut (SAIDAH 1993–4: 186, pl. 11). The few published examples which come from deposits of limited duration, such as Tell el-^cAjjul Tombs 1417 and 1015, belong to the end of MB IIA or early MB IIB/C (TUFNELL 1962; GERSTENBLITH 1983), while an example from el-Gib Tomb 45 dates to the beginning of MB II B/C, as does an unpublished piece from Beth Shemesh (DEVER 1975: 28). These dates appear consistent with their stratigraphic position at Tell el-Dab^a, which sees Type 13 daggers concentrated in graves spanning strata G and F (see Table 3).

All the instances of these daggers from Tell el-Dab^a appear to have been produced with the ribs cast-in. However, occasional examples are known from other sites — Tell el-^cAjjul for example (PHILIP 1989: 178) — in which the ribs were demarcated by incision, often in a rather irregular fashion. This would appear to represent an attempt to attain the appearance of a ribbed dagger by a smith who did not have ready access to the correct form of two-piece steatite mould (see 4.2.4.4). The interesting point about this practice is that it highlights the desirability of daggers of this particular form.

Two other daggers, Nos 3081 and 4041, although more difficult to assign to specific types, have relatively broad blades and short trapezoidal tangs which contain three rivets in a triangular layout, thus sharing a certain feature with the Type 13 daggers

with which they are contemporary. These probably represent simpler copies of the highly styled daggers.

Daggers with broad, flat midribs (PHILIP 1989, Type 17) and related variation (PHILIP 1989, Type 18)

The third readily identifiable type consists of daggers with a broad flat midrib, frequently of rhomboidal cross-section, with a sharp point. Type 17. A smaller group of daggers of very similar design, but in which the blade lacks the distinct flat medial zone and which has a lens-shaped cross-section, are assigned to Type 18. The latter might be regarded as a variant of Type 17, perhaps created because the simpler blade form rendered them easier to produce. Daggers of these types predominate in graves spanning strata E/2 to D/3, broadly contemporary with Palestinian MB IIB/C.

The best Levantine parallels date to the MB IIB/C period and come from sites in the southern Levant, rather than from Syria. Several daggers of this type are published from Jericho, and additional examples come from various sites in southern Palestine (see PHILIP 1989: 120–1). Three recently published examples from a tomb at Safed in Galilee, in apparently MB IIB/C contexts, represent the most northerly instances thus far published. One of these was associated with a sub-globular limestone pommel (DAMATI and STEPANSKY 1996: 108, figs. 15, 16).

Some examples, such as the daggers from Jericho Tombs J13 and D9 (KENYON 1960: 313, fig. 117.6; 1965: 284, fig. 111.10–11), which are assigned to KENYON's chronological groups I and II respectively, and that from Tell Fara^h (N) Tomb A (DE VAUX and STÈVE 1947: 135, pl. XX.3), can be placed relatively early in the MB IIB/C period. Others come from reused tombs and can only be dated to MB IIB/C in general. Although it is dangerous to argue from negative evidence, the absence of daggers of this type from the relatively large assemblage of weapons from the '500' cemetery at Tell Fara (S), (PRICE-WILLIAMS 1977) a group which is usually placed late in the MB IIB/C period (DEVER 1992: 7, fig. 2;), might suggest that the type ceased production before the end of the MBA. As in the case of the Type 2 narrow-bladed axes, however (see 3.1.3), the extensive looting of graves from the latest Second Intermediate Period occupation at Tell el-Dab^a means that this must remain but a suggestion for the present.

Dagger with broad blade with concave or straight butt (PHILIP 1989, Type 34)

Daggers of this type have broad blades of rather flat cross-section, frequently showing concave edges and

two rivet holes for the attachment of a handle (PHILIP 1989: 134). Various examples are known, mostly from MB IIB/C contexts in Palestine (PHILIP 1989: 479–82). No. 7138 has a close parallel in Jericho Tomb G37 (KENYON 1960: 329, fig. 146. 4), which belongs to KENYON's chronological Group II, and from Tell Fara (S), where the form is well represented in both the '500' and '1000' cemeteries (PHILIP 1989: 481–2 with further references), which appear to fall quite late in the MB IIB/C period (KEMPINSKI 1992: 192; DEVER 1992: 7, fig. 2). Other examples are known from Safed in Galilee (DAMATI and STEPANSKY 1996: 108, fig. 17.2). While No. 7138 was found in a secondary context, it came from Area A/V where there had been extensive disturbance of late Second Intermediate Period graves, for example A/V o/18 Gr. 1 (HEIN and JÁNOSI 2004: 135, fig. 100). It is reasonable to believe that the dagger originated in one of the looted graves, and thus dates to a late point in the Second Intermediate Period. Such a dating would be consistent also with the stratigraphic position, E/2–1, of No. 3106.

Other types

Small dagger blades with rivets fitted into a straight or convex butt occur at various sites in the Levant (PHILIP 1989: 481–2). As in the case of No. 7974, at least some are likely to represent objects refashioned from damaged sections of larger blades.

That apart, very few daggers have been recovered from Tell el-Dab'a which are not readily identifiable as one of the three main forms discussed above (Types 12, 13 and 17). This is particularly the case with daggers from graves assigned to stratum E/2 and later, of which by far the majority are of Type 17 or 18. The relative consistency of types documented at Tell el-Dab'a suggests that there was a deliberate emphasis upon the production and possession of daggers in specific styles. Moreover, the clear chronological succession running from Types 12 through 13 to 17 (Table 3), suggests that at any single point in time there existed a preferred style.

Even more intriguing is the fact that these styles were not specific to Tell el-Dab'a, but appear to belong to a wider Levantine cultural sphere. Not only are many of the same dagger styles found throughout the Levant, it is also clear that major periods of stylistic change were broadly synchronous throughout the region. That said, however, there appears to be a diachronic distinction in the scale of this stylistic conformity. While daggers of Type 12 occurred throughout Syria-Palestine, and daggers of Type 13 throughout the coastal Levant, those of Type 17 were restricted to southern Palestine and the Delta alone. The existence of a distinct dagger style peculiar to the Delta and Palestine/Transjordan is particularly interesting in the light of the possible status associations of these artefacts.

Stratum	Dagger Type 12	Dagger Types 13	Other broad bladed forms	Dagger Type 17	Dagger Type 18	Dagger Type 34
H	1					
G/4–H						
G/4		2				
G/1–3		1				
F–G/1			1			
F		3				
E/3–F						
E/3						
E/2						
E/1–E/2				2		1
E/1					1	
D/3–E/1				4	2	
D/3						

Table 3 Distribution of dagger-types by stratum (artefacts from secure contexts only)

One possible explanation is that this style of dagger was produced in the Delta, and distributed from there to the southern Levant. However, this is contradicted by the differences in the composition of the metal used for the Type 17 daggers from Tell el-Dab^a which were largely made from unalloyed copper (see 4.4.5), and those originating in the MBA cemetery at Jericho which were usually made in tin-bronze (PHILIP 1995c: 524–5). Furthermore, MBA cemeteries in the southern Levant have produced a rather wider range of daggers. Among common Levantine types *absent* at Tell el-Dab^a are rivetless, tanged daggers with flat blades, PHILIP's (1989: 113–4) Type 10. These occur in MBA graves at Lachish, Jericho, and Tell Fara (S) (e.g. TUFNELL 1958: 77, pls. 12–20; KENYON 1965: 428, fig. 111.18; PRICE-WILLIAMS 1977: 71, fig. 45.1). As a number of these come from graves which DEVER (1992: 7, fig. 2) assigns to the first part of the MB IIB/C period, their absence in the Delta cannot simply be explained on chronological grounds. Rather, it appears that the community at Tell el-Dab^a had a clear understanding of the symbolic value of the adherence to particular styles. A possible clue comes from the frequency, and prominent position, of daggers on Bronze Age Levantine male votive figurines (SEEDEN 1980: 137).

An additional Type 13 dagger was recently published by FORSTNER-MÜLLER (2001: 217, Abb. 18). This came from A/II p/14 Gr. 18 and is assigned to stratum F and confirms the chronological pattern discussed above. This dagger bears five ribs on the blade, and a long tapering tang similar to those of Nos. 810 and 1756.

3.2.2 The wider context

The third millennium BC background

While daggers with styled blades have usually been considered characteristic of the MBA of the Levantine coast, the evidence from recently excavated EB IV high-status tombs at Jerablus Tahtani and Umm el-Marra in north-west Syria, which have produced daggers with ribbed blades (PHILIP n.d.; SCHWARTZ *et al.* 2003: 334, fig. 21) requires a revision of this view. It is now clear that such daggers were a component of inland Syrian grave assemblages by the final centuries of the third millennium BC. These finds also provide a context for the appearance of a possible example of a Type 12 dagger on a late third millennium BC seal from Tell Selenkahiye (VAN LOON 1979: fig. 11). Practices often seen as characteristic of the MBA Levant thus appear to represent a development of an earlier north Syrian tradition.

Cyprus and the Aegean

The above information also clarifies developments in other parts of the east Mediterranean, as daggers with decorated blades have also been reported from the Aegean. These come mainly from Crete, with a few originating in the Cyclades and Cyprus where they constitute BRANIGAN's (1974: 11) dagger Type 10. Both the distinctive notch that occurs on the butt of many Cretan dagger blades, and the arrangement of rivets, suggested to BRANIGAN (1974: 11–12) that these are best interpreted as local products, which therefore presumably reflect the adoption of a Levantine style of decoration. A tin-bronze dagger from the Vounous cemetery on Cyprus (Tomb 143.32), revealed two longitudinal ribs flanking a raised medial ridge bearing lightly incised decoration (WEINSTEIN-BALTHAZAR 1990: 135). The dagger is of EC III–MC I date and although seen as Minoan by some (e.g. CATLING and KARAGEORGHIS 1960: 110–12), is typologically very close to PHILIP's (1989: 115–16) dagger Type 12 and so may well represent an import from the Levant. Broadly contemporary is another tin-bronze dagger from Cyprus (Vounous Tomb 19.89) which has three longitudinal ribs running along the blade and a notched butt, and is generally believed to have originated on Crete (BRANIGAN 1974: 160; WEINSTEIN-BALTHAZAR 1990: 120–1).

On present evidence it is hard to identify instances of daggers with ribbed blades from the Levantine coast which are *unequivocally* earlier than those from the Vounous cemetery on Cyprus. However, the situation is more readily understood if the adoption of decorated daggers in the Levant, Crete, and Cyprus is viewed as the appropriation of an EB IV Syrian tradition in three, interconnected but still distinct, regional contexts. In this sense, the manner and extent to which these ideas were developed and propagated in each case, can be seen as dependent upon the specific socio-economic conditions prevailing in each locality. That said, while daggers with ribbed blades were adopted to greater or lesser degrees in the Levant, Cyprus, the Aegean, and the Nile Delta during the earlier part of the second millennium BC, the evidence does not indicate wholesale commonality of prestige metalwork in all four regions. Rather, the pattern is one of clear regional selectivity, a pattern which offers interesting possibilities for interpretation (see 6.2).

3.3 POMMELS

The pommels from Tell el-Dab^a fall into four typological groups, and three distinct materials. There is a marked degree of consistency between the material

and pommel forms. The largest group consists of sub-globular pommels in white limestone. While one might expect these to come mainly from tombs, only four examples were actually found within grave chambers, and only one of these, No. 4128ii, was found *in situ*. The majority of pommels were found either in robber pits or in open areas, presumably representing the discard from grave robbing. The discovery of a large number of 'loose' pommels, suggests that these result from the deliberate dismantling of the handles of daggers looted from graves. This would lead to the conclusion that dagger handles were frequently embellished with precious materials (cf. No. 7323), and that the stone pommels were discarded as of little value.

Pommels appear quite early in the sequence, with several examples coming from tombs in stratum G/4. While they occur throughout the sequence, there are no examples from primary contexts post-dating G/1–3. All later instances occur in secondary contexts. The apparent absence of Type 1 pommels from the numerous tombs of phases E/3 and later is interesting, given the number of Type 17 and 18 dagger-blades that these have produced, and the clear association between such daggers and pommels of this form documented at sites such as Jericho (e.g. KENYON 1965: 238, fig. 111.1–2, 259, fig. 111.3–5). Broadly speaking, those Type 1 pommels which come from graves occur contemporaneously with daggers of Type 13. Moreover, in the only instance where a Type 1 pommel was found in direct association with a dagger (No. 4128ii) it was with an example of Type 13.

Type 1 pommels are invariably made from limestone, and it is likely that the polished white surface was an important aspect of their appearance. It is clear from SEEDEN's (1980: 137) discussion of Bronze Age votive figurines from the Levant, that it was the pommel rather than the dagger itself (which was enclosed in a sheath) that was the most visible element when these were worn suspended from a belt. It appears that the white colour, shape, and relatively high visibility of pommels gave them an important role in symbolic communication. It is interesting to note that while Type 4 crescent-shaped pommels are frequently depicted on figurines (e.g. SEEDEN 1980: nos. 67–8, 73), this is less obviously the case with the sub-globular pommels of Type 1 (e.g. SEEDEN 1980: no. 110). This may be because the latter style of pommel was particularly characteristic of the southern Levant and Nile Delta, while most of the figurines discussed by SEEDEN (1980) come, where provenance is recorded, from sites in the central and northern Levant.

The crescent-shaped ivory pommel belongs to a style which has general parallels from MB IIA deposits in the Levant including the 'Dépôts des Offrandes' at Byblos (DUNAND 1954–8: 697, pl. CXVI–II, 739–40, pl. CXXIII) and Tell Rehov in northern Palestine (YOGEV 1985: fig. 4.1). The presence of numerous crescent-shaped dagger pommels at Byblos, where they are clearly associated with daggers with decorated blades (PHILIP 1989: 116), and their frequency in Egypt proper (see below) might lead one to expect more of these to have been found at Tell el-Dab'a. However, globular pommels are far more numerous at the site. This may be attributable to chronological factors, since Tell el-Dab'a stratum H falls relatively late in the MB IIA period as defined in the Levant (Table 1), and the Type 13 daggers which predominate in strata G and F are usually associated with sub-globular limestone pommels (PHILIP 1989: 117). However, it should also be remembered that the survival rate for ivory in the damp soil conditions of the Delta may have been much inferior to that of limestone. Crescent-shaped pommels may therefore be under-represented in the archaeological record in comparison to examples from, for instance, the drier conditions of the Nile Valley.

The tall, conical ivory pommel No. 4226i is a rather unusual piece, for which no parallels are known in the Levant. It does, however, bear a general resemblance to the style of pommel found on certain daggers from tombs assigned to the Kerma Classique period in Nubia (GRATIEN 1978: 250, table 8). Although it was found in a secondary context, it can date no later than stratum H, and therefore appears likely to be of Twelfth Dynasty date.

Decoration

The decoration of artefacts with gold sheet, as typified by dagger No. 7323, is well-documented in Middle Kingdom inscriptions (SCHEEL 1986: 203), while the use of similar decorative techniques can be identified in certain artefacts from the Royal Tombs at Byblos. This highlights the degree to which key metalworking practices were held in common between Egypt, the Nile Delta and much of western Asia during the earlier second millennium BC, despite typological differences in many of the basic products. This point alone implies that styles were accepted or rejected not for technical, but for social or ideological reasons.

Egypt and the south

The presence of a crescent-shaped pommel at Tell el-Dab'a raises interesting questions concerning the status of daggers with similar pommels found in Nubian

tombs, dated to Kerma Moyen, which have generally been viewed as being of Egyptian manufacture (GRATIEN 1978: 250, table 8). The problem is that many of the Egyptian Middle Kingdom parallels which GRATIEN (1978: 171) cites, are taken from the work of PETRIE (1917: 28–9). Most of the Egyptian daggers discussed by PETRIE lack adequate contextual data, while others are dated, not on stratigraphic, but on 'stylistic considerations' (e.g. PETRIE 1917: pl. 33.7, 33.11). Even supposedly well-dated examples are no longer secure. For instance, a dagger from the tomb of Ita at Dashur, originally viewed as being of Twelfth Dynasty date (DE MORGAN 1896: 52, pl. VI), was subsequently shown to relate to the re-use of this burial complex during the Thirteenth Dynasty (WILLIAMS 1975–76: 42–3; RYHOLT 1997: 83), and therefore post-dates the appearance of Asiatic settlers at Tell el-Dab'a. Another case in point is PETRIE's (1917: 28) statement that daggers bearing longitudinal parallel ribs on the blade were 'peculiarly Egyptian'. It is now clear that this dagger type (Type 13) is of west Asian origin.

Two daggers with crescent-shaped pommels also appear in the late Middle Kingdom/Second Intermediate Period BC 'Y cemetery' at Hu in the Hiw-Semainia region of Upper Egypt (PETRIE 1901: 43, pls. XXXII.5, Y165, XXXII.16, Y211), although the scanty publication of these tombs provides little in the way of independent dating evidence. However, in the absence of clear precursors for such daggers from Old Kingdom graves, or representational art, one might suspect that the form gained symbolic value in Egypt only during the Middle Kingdom, and that this may well have been inspired by contacts with symbolic systems current in the east Mediterranean basin around 2000 BC. I would therefore suggest that the adoption of daggers with crescent-shaped pommels in Egypt during the Middle Kingdom resulted from a growing Egyptian familiarity with west Asian elite practices and material culture. What is interesting is that the design of the blade favoured in Nubia generally lacks the elaborate surface decoration of contemporary west Asian daggers. This might be read as an indication that smiths in Egypt, and/or the Sudan, had limited access to steatite moulds.

The sharing of material culture may have come about through direct political contacts between Egypt and the Levant, or through the presence within Egypt of large numbers of Asiatics during the Middle Kingdom, ranging from slaves and labourers through to high-ranking officials (VAN SETERS 1966: 87–96). An example of the latter is Khebed 'brother

of the prince of Retenu', mentioned in several inscriptions from the mining centre of Serabit el-Khadim in the Sinai dated to the reign of Amenemhet III, and who appears to have been involved in the supervision of mining expeditions (VAN SETERS 1966: 89). Regarding direct political contacts, the inscription of Amenemhet II from the Temple of Ptah at Memphis (ALTENMÜLLER and MOUSSA 1991) provides clear evidence for the acquisition by Egypt of artefacts and raw materials from both the Levant and Nubia during the twentieth century BC, and for the presence in Egypt of individuals from both areas. It was surely just such mechanisms that would have provided the contacts which favoured the transmission of aspects of west Asian elite artefact-styles which had proved sufficiently popular in Egypt to feature in royal dedicatory inscriptions, to Nubian elites during the early second millennium BC. In this particular case, the mention of gold and silver daggers, and others made in bronze and ivory, acquired in the course of an expedition to Lebanon (ALTENMÜLLER and MOUSSA 1991: 14–16), is especially significant, since it demonstrates that these artefacts were familiar to Egyptians well before the appearance of Asiatic prestige material at Tell el-Dab'a.

The importance of west Asian links is highlighted by the presence of lapis lazuli, a material found only in Afghanistan, in the richly decorated handle of a dagger from the thirteenth Dynasty tomb of Ita at Dashur (DE MORGAN 1896: 52, pl. VI). Further echoes of west Asian tradition come from the fact that this dagger was contained within a scabbard which was, to judge from the presence of small silver plaques perforated around the edges, attached to a leather or fabric belt (see 3.7).

While the appearance of daggers with crescent-shaped handles in Kerma graves may indicate the acceptance by local elites of an aspect of Middle Kingdom material culture that appeared to be in tune with existing local value systems, it would appear that the underlying concept was not Egyptian at all, but west Asian. The degree to which items of material culture can be recontextualized is clear from the fact that the crescent-shaped pommel appears to have continued in use in both Nubia and Egypt for some time after it had been replaced by other forms in the Levant and the Nile Delta. For example, daggers with a crescent-shaped ivory handle and with rivets arranged in a triangular pattern in the butt, occur in Pan Graves assigned to Stage IIB of BIETAK's 'C-group', which are dated to the late Middle Kingdom and Second Intermediate Period (BIETAK 1968: 136).

3.4 SPEARHEADS AND OTHER PROJECTILES

3.4.1 Spearheads

Spearheads were recovered exclusively from grave contexts. The majority are small, lightweight weapons. Approximately two-thirds of the total (14 examples) occur in pairs, the remainder as single items. Both their size and weight, as well as their frequent occurrence in pairs, argues that they represent throwing rather than thrusting spears (PHILIP 1989: 92). In fact, the account of single combat between Sinuhe and the 'Champion of Retenu' begins with an exchange of projectiles, perhaps just such small spears, before proceeding to close combat using battle-axes (PRITCHARD 1955: 20). In contrast, the sole instance of a large spearhead (No. 4802) occurs singly.

No spearheads were recovered from contexts other than graves, suggesting that even when tombs were looted, these were of little interest and were frequently left in place. This may relate to the fact that most contained relatively small amounts of metal – although the presence of a pair of silver examples (Nos. 7017, 7018) indicates that, like daggers and axes, spearheads could be used in contexts of conspicuous consumption. This point is emphasized by the fact that these come from F/I m/18 Gr. 3 which contained a particularly rich assemblage (see 5.2.17).

The burial of pairs of small spearheads is also documented in MBA graves in the southern Levant such as Tell Rehov Gr. 2 (YOGEV 1985). The same practice may be present within the numerous, disturbed, multiple successive burials found in Palestine. Examples include: Tomb 1100D at Megiddo (GUY 1938: Pl. 149.4), and graves at Ginosar (EPSTEIN 1974), Gacled (MEIR 1974) and Safed (DAMATI and STEPANSKY 1996: 107, figs. 12, 13). That said, other Levantine burials have produced single spearheads (GARFINKEL 2000: 145–8), suggesting that there was some flexibility in specific patterns of deposition.

Although many examples from the southern Levant have been published, recent evidence from the MBA Kharji tombs at Beirut (SAIDAH 1993–4: 186, pl. 14, 1–3) demonstrates that the form was also at home in the northern Levant – as implied by the Sinuhe tale. It is interesting, however, to note that in addition to small spearheads, tombs excavated in Lebanon have also produced rather longer spearheads with pronounced rounded midribs (SAIDAH 1993–4: 186, pls. 12.1–4, 13.1–4; THALMANN 2000: 51, fig. 43), a form which is relatively rare in the south-

ern Levant (PHILIP 1989: 169–70). The former do, however, have certain features in common with the single example of a long spearhead (No. 4802) documented at Tell el-Dab'a, perhaps strengthening the evidence for northern influence upon burial practices during the early phases at the site (Table 4).

The chronological distribution of spearheads is heavily skewed towards the earlier strata. Numerous examples come from graves assigned to strata H and G, and relatively few occur in contexts which are clearly assignable to stratum E/3 or later. The chronological distribution of spearheads at the site is quite different from that of axes and daggers. In this respect, burial practices at Tell el-Dab'a echo those documented in the contemporary Levant, where small spearheads are largely restricted to graves dating to the first half of the MBA (PHILIP 1989: 169). The sole, large spearhead which has parallels with the northern Levant is assigned to stratum E/3–F, or transitional MB IIA–B. Large spearheads are however absent in the later strata, a pattern which resembles that of the southern Levant rather than Syria, where examples occur in later MBA contexts at both Ras Shamra and Tell Mardikh (PHILIP 1989: 99).

In contrast to their ubiquity in the Levant, there is much less evidence for spearheads in the archaeological record of Middle Kingdom Egypt, suggesting

Stratum	Total Number of Spearheads
H	6
G/4–H	1
G/4	5
G/1–3	3
F–G/1	3
F	
E/3–F	2
E/3	1
E/2	1
E/1–E/2	
E/1	
D/3–E/1	
D/3	
D/2–3	

Table 4 Distribution of spearheads by stratum (artefacts from secure contexts only)

that there, they were not perceived to hold the same symbolic value in funerary contexts. The wooden warrior models from the Tomb of Mesehti at Asyut, which date to the First Intermediate Period, demonstrate that spears were certainly employed in Egypt as weapons. According to GRÉBAU (1890–1900: 32, pls. XXXIII–XXXV) the spears measured around 1.7 m in overall length and had leaf-shaped heads of flat cross-section measuring 20–5 cm in length. In contrast to practices in the Delta, these spearheads were attached to the handle using a straight metal tang, which was fixed to the shaft by a leather binding. In comparison to those from Tell el-Dabʿa therefore, the spears favoured in the Nile Valley were of quite different design. They were considerably larger, and were used singly, not as pairs. This suggests that there existed a genuine difference between Nile Valley and Nile Delta traditions in terms of both styles of combat, and the role of weapons and warfare as symbols of status.

3.4.2 Projectiles

One leaf-shaped arrowhead (No. 320) was recovered in a D/3–E/1 context, but it is of little chronological value as it comes from an area which was disturbed by Late Period foundations and New Kingdom pits. More significantly, the absence of arrowheads from Second Intermediate Period graves offers a striking contrast to the ubiquity of other weapon types. This situation is paralleled in the southern Levant where arrowheads played only a small role in grave assemblages before the Late Bronze Age (PHILIP 1989: 145). This development appears to be connected with the symbolic significance of new forms of prestige warfare, in particular the widespread dissemination of the composite bow, and its close association with the horse-drawn chariot and scale-armour (MOOREY 1986). As HULIT (2002) has recently demonstrated, a typical LBA ‘warrior’ funerary assemblage would have consisted of a composite bow, bronze-tipped arrows, and a corselet of leather (not bronze) armour scales. The metal arrowheads would constitute the *only* non-perishable component of such an assemblage, suggesting that the concentrations of bronze arrowheads which are recorded in a number of LBA graves (e.g. GONEN 1992: 67) may represent the strongest archaeological evidence for a change in the method of marking warrior status in funerary contexts around the beginning of the LBA. There is no evidence for such practices in the Second Intermediate Period grave record at Tell el-Dabʿa. Similarly, Cyprus offers no evidence for the use of metal arrowheads prior to the Late Cypriot period

(CATLING 1964: 130), a view since confirmed by WEINSTEIN-BALTHAZAR’s (1990) comprehensive discussion of the metal artefacts of the Early and Middle Cypriot periods.

In contrast, there is much better evidence from Egypt for the use of archery. The Twelfth Dynasty Tomb of Nakht produced a set of replica arrowheads, which were found along with two bows and two long, hollow tubes which were interpreted as quivers (CHASSINAT and PALANQUE 1911: 47). Moreover, the self-bow features regularly both in representational art, and as archery equipment in graves (SHAW 1991: 37). The presence of a gold archer’s wristguard bearing the name of Ahmose in the Seventeenth Dynasty tomb of Ahhotep at Draʿ Abu-n-Nagar (MÜLLER 1989: Taf. 1), is in stark contrast to the absence of such material at Tell el-Dabʿa. Groups of arrowheads feature prominently in New Kingdom burials and their presence is one of the most striking contrasts between Middle and New Kingdom funerary practices (SMITH 1992: 220). While this is not the place to address at length the suggestion that the ‘Hyksos’ introduced the chariot to Egypt, the absence of metal arrowheads from graves at Tell el-Dabʿa and the continued inclusion of axes and daggers in graves until stratum D/3 at least, suggests that whatever the situation regarding developments in the military field, a version of the traditional MBA symbolic system continued to hold sway in funerary contexts for most, if not all, of the Second Intermediate Period.

The trilobate arrowheads from the site are from very late or surface contexts. This type is well documented in Iran and Mesopotamia, where socketed trilobate (also called tripartite) arrowheads appear in the late eighth and seventh centuries BC (CURTIS 1984: 28). There, they are often associated with groups of mobile, mounted archers from the steppe region of southern Russia, such as the Cimmerians and Scythians. That said, it is clear from finds in the Levant that the use of such weapons was not restricted to any one ethnic group (see CLEUZIO 1977: 192; this form of arrowhead falls within his Type F14). CLEUZIO (1977: 192) sees their appearance in the Levant as connected with the activities of the Neo-Babylonian army. An association with the Persian military is however also possible, as such arrowheads were standard issue for the Achaemenid army and are well-documented at Deve Hüyük and Tell Michal, among other western sites (MOOREY 1980: 64; MUHLY and MUHLY 1989: 269, fig. 25.1, 1–17). Four thousand examples of such arrowheads are known from the Treasury at Persepolis in Iran (CURTIS 1984: 28).

3.5 SINGLE-EDGED KNIVES WITH CURVED BLADES

The distinctive curved knife forms an important part of the MBA funerary equipment from Tell el-Dab'a. More examples of this knife are documented there than at any other single cemetery of this period. The knives have thin blades with a convex curve on the sharpened side, and a straight back which is sometimes deliberately blunted. The very tip of the blade is often inclined upwards, in some cases markedly so, forming a distinctive upturned tip. This would seem to be a stylistic rather than a functional device, as some knives do not exhibit this feature. The turned-up point would however have been vulnerable to wear and damage, and the artefacts may have been refashioned regularly. Even without deliberate reworking, the point would surely have been weakened and diminished through frequent sharpening. As these knives were made from relatively thin metal, they are frequently incomplete or fragmentary when found. Moreover, the thinness of the metal exacerbates the effects of corrosion, making it hard to obtain reliable samples for chemical analysis. There is evidence from Tell el-Dab'a to suggest that these knives were produced locally, (e.g. mould Nos. 3114 and 7171) having been cast in an open limestone mould and subsequently hammer-finished.

3.5.1 Chronology and distribution

Ninety percent of Type 1 knives appear in graves, with only two of twenty-two examples occurring in what are clearly non-mortuary contexts. This form of knife, which is characterized by a trapezoidal butt, appears throughout most of the sequence beginning with stratum G/4. Examples are however concentrated in the latter part of the sequence, particularly in strata E/1 and D/3. Type 2 knives appear in both grave and settlement contexts. No. 86 comes not from the grave chamber proper, but from a pit in front of the tomb which contained two donkey burials. This type is concentrated in stratum E/1 and later. No. 1746 comes from a domestic structure in Area A/V. Thus, while knives appear throughout the sequence, they appear to become increasingly common in the later strata (Table 5).

However, knife forms show little typological development through the sequence, a feature which corresponds to the pattern exhibited by such knives in the Levant generally (PHILIP 1989: 141). Nor are there typological differences between the knives found in graves, and those from non-funerary contexts. The lack of demonstrable development within the type provides a sharp contrast to the relatively rapid stylistic change demonstrated by daggers and axes. This is unlikely to be fortuitous.

The earliest example in the sequence, No. 3398.1, comes from the pit of F/I j/21 Gr. 13 and is assigned to stratum H. However, the first instance found within a tomb chamber, No. 6143, is a unique knife with curled tip. This comes from F/I-m/18 Gr. 3, assigned to stratum G/4, a tomb which produced a rich range of metalwork. The unusual curled tip, for which there are no published parallels in Palestine, does occur on a group of knives from the Kharji tombs in Beirut (SAIDAH 1993-4: 186, pl. 4. 1-3, pl. 5. 1-3, pl. 6. 1). This particular feature again highlights the north Levantine connections of the metalwork from the early phases at Tell el-Dab'a. Similar knives are documented at Byblos, with the Royal Graves including an example with a silver blade and a gold-inlaid handle (MONTET 1928: 181, no. 655), and fragmentary examples with handles inlaid with sheet gold (Nos. 656-68) and/or sheet silver (Nos. 660-2).

The appearance of knives in the high status graves of Area F/I at Tell el-Dab'a is consistent with their presence in the Byblos Royal Tombs (MONTET 1928: 181, pl. CII). However, at Tell el-Dab'a, as in Palestine, the bulk of the corpus comes from MB IIB/C contexts (PHILIP 1989: 141-2: figs. 90a, 90b), and the type survives in use at the site until relatively late in the Second Intermediate

Stratum	Knife Type 1	Knife Type 2	Unclassified (fragmentary) knives
H			1
G/4-H			
G/4	2		
G/1-3			
F-G/1	1		
F	1		
E/3-F			
E/3	2		1
E/2			
E/1-E/2	1		
E/1	5	4	2
D/3-E/1	7	1	
D/3	2		2
D/2-3	1		
D/1			1

Table 5 Distribution of single-edged knives by stratum

Period. There is a parallel for this from Tomb 62 at Pella in the Jordan Valley which spans the transition from the Middle to the Late Bronze Age (SMITH and POTTS 1992: 69). Curved knives continue to appear in Late Bronze Age graves, but in rather different styles. The form described here goes out of use around the end of the MBA. As far as can be ascertained from the limited published evidence, they are not common in second millennium BC burials from inland north Syria (PHILIP 1989: 141) or Mesopotamia (PHILIP 1995a: 146).

During MB IIB/C, single-edged knives appear relatively infrequently at sites in the northern littoral, although they are common in the south. No examples are listed in WEINSTEIN-BALTHAZAR's (1990) compendium of Early and Middle Cypriot metalwork, and curved knives with a straight back and a handle fixed using rivets appear on Cyprus only during the Late Cypriot period (e.g. CATLING 1964: 102–3, e.g. fig. 10.13). There, the preference was for a style of two-edged knife, the local origins of which can be traced back into the third millennium BC (PHILIP 1991b: 73–7; WEINSTEIN-BALTHAZAR 1990: 324–6).

Mainland Greece reveals few good parallels for this style of knife (BRANIGAN 1974: 27, nos. 656, 657). Although single-edged, curved knives are represented on Crete during the later third and early second millennia BC (EVELY 1993: 11–12, 20, figs. 8–9, with references), these generally had handles secured by two or three rivets arranged in a straight line. Moreover, on Crete the type appears to have been used mainly as a tool, (EVELY 1993: 20 note 3) and there does not appear to be the overwhelming concentration of these knives in funerary contexts that is documented in both the Nile Delta and the Levant. Overall, the evidence from Crete and Cyprus indicates that the curved-bladed knife was inextricably linked to systems of meaning and value originating in the Levant, but which extended also to the Nile Delta.

The presence of similar knives in Egypt, for example in a Pan Grave at Abadiyeh E2 (PETRIE 1901: pl. 38), and a knife from Kerma Tumulus 20 (*Boston Museum of Fine Arts* 1982: 49–50, fig. 20) which features three rivets in a triangular pattern, and of which the tip of the blade is bent around to take the shape of a backwards-looking duck's head, might suggest that there was an Egyptian connection. However, in Egyptian knives, the handle is formed in the shape of the leg of an ox or bull, and such elaborate handles have good parallels of New Kingdom date (PETRIE 1917: 25, pls. 26: 1, 4, 5; HAYES 1953: 28–9, fig. 10).

It is possible that the origins of this type of knife

lie in Egyptian metalworking traditions, with a butchery knife adapted, perhaps in a stylized form, to perform a rather different role in the context of the Levant-Nile Delta cultural province. Support for this view comes from their appearance in the Royal Tombs at Byblos, a polity known for its strong connections with Egypt (RYHOLT 1997: 87). Moreover, unpublished knives with curved blades and long handles of ovoid section (related perhaps to Type 2) are known from Middle Kingdom contexts at Tell el-Dab'a in Area H/II (as yet unpublished, Reg. Nos. 8310a, 8337), and thus predate the examples found in Areas A/II and F/1. However, as such knives are presently unknown from Middle Kingdom burial contexts, for this explanation to be convincing it would have been necessary for Egyptian butchery knives to have been adopted by the populations of the Delta and Syria-Palestine, and then rapidly re-contextualized to assume a role in their funerary practices.

Another objection to this line of argument comes from the recent publication of a curved-bladed knife from a well-equipped third millennium BC tomb at Mari (JEAN-MARIE 1999: 45, pl. 45, M1427), indicating that such knives were associated with west Asian elite funerary practices several centuries prior to their first appearance on the Levantine littoral. The evidence from Mari then, appears to point to a west Asian origin for this practice.

3.5.2 Function

The shape of these knives implies that they were designed for cutting rather than stabbing. As far as Egypt is concerned parallels are generally drawn with the so-called 'butchery knives', depicted in Egyptian wall paintings of New Kingdom date. Those depicted in butchery scenes appearing in the Tomb of Rekhmire at Thebes with a straight back, and an angled, plain handle are a case in point (DAVIES 1943: pl. 46). I would suggest that both the general form and the parallels with Egyptian tomb scenes point to some connection with butchery. It therefore seems reasonable to suggest that the frequency with which such knives appear in graves, results from their connection with the practice of depositing joints of meat in tombs (PHILIP 1989: 171–2). Support for this view comes from the repeated discovery of meat offerings in graves at Tell el-Dab'a and of the occasional direct association of knives with animal bones (see 5.2.5). A good example of such a knife in a burial context, where it was found in clear association with animal bone has recently been published from a MBA cemetery in Sidon (DOUMET-SERHAL 2004: 139, 150).

While the knives are common grave items, they may have had a function in domestic contexts as well. It is possible that examples from the relatively secure environment of graves are over-represented in the archaeological record *vis-a-vis* examples from domestic contexts. Several specimens do come from non-funerary contexts at the site, but it is not possible to say whether these represent domestic items, or debris from disturbed tombs.

A particularly interesting example is No. 387. This knife is larger than the others and has a distinctive thick, tanged handle ending in a hammered flange. As with curved knives, the blade is sharp along the convex side. On balance, the details of its form, and its presence in a typical grave context suggest that this artefact should simply be considered a larger than normal variant of the basic curved knife.

3.5.3 Curved swords

A true curved sword (Fig. 60a) from a well-equipped stratum F grave in Area A/II at Tell el-Dab'a was recently published by FORSTNER-MÜLLER (2001: 217, Abb. 19). This example, which was positioned in the arms of the deceased, allows us to put those from the Royal Graves at Byblos (MONTET 1928: 174–7, nos. 652, 653, 654) into perspective. The Tell el-Dab'a curved sword represents the earliest example of secure provenance from Egypt. There is now ample representational evidence to show that this type of weapon was associated with gods and elites by the later third millennium BC in west Asia (PHILIP 1989: 142–3). The presence of such an artefact at a site where the grave metalwork was very much in a west Asian tradition appears to confirm the non-Egyptian origin of these objects. As the Tell el-Dab'a example appears to lack the Egyptianizing decorative features that were so characteristic of those from Byblos, we can now appreciate the latter as exceptional. The Byblos curved swords were probably decorated with Egyptian motifs, not because the weapons had any particular connection with Egypt, but because of the specific political situation at Byblos, where connections with late Mid-

dle Kingdom Egypt were both regular and strong. This is evidenced both by the presence of Egyptian items bearing royal cartouches and by the use by local rulers of the Egyptian title 'Governor of Byblos' (RYHOLT 1997: 87). Under such circumstances, the addition of Egyptian symbolism to a traditional west Asian symbol of royalty becomes comprehensible.

3.6 SUMMARY OF WEAPONS

3.6.1. Weapons in the Levant and Nile Delta

Weapons were an important part of the grave repertoire at Tell el-Dab'a. In general, the types have good parallels in Syria-Palestine, and show far less evidence of connections with Egyptian forms. The adherence to particular styles, often of wide spatial extent, suggests that the metalwork of Tell el-Dab'a was closely tied to wider symbolic understandings. Frequent stylistic change over time appears to have formed an important dynamic within weaponry. In part, this may be linked to the opportunities for stylistic innovation offered by steatite moulds, although it is likely that technology followed, rather than created this demand.

One point emerges very clearly. The weapon styles which dominate in graves of stratum H through F occur throughout the Levant. However, those characteristic of phases E/3 and later are limited to the southern Levant and the Nile Delta. This shift most likely attests to an important change in the spatial scale of symbolic communication, and is probably indicative of changing political relationships and in particular a greater focus on the southern Levant during the MB IIB/C period. The majority of weapons found in the graves from Tell el-Dab'a conform to a limited range of standard types, in contrast to the position in the southern Levant where many weapons of less highly stylized designs occur alongside the 'classic' forms (PHILIP 1989: 214). This might suggest that Tell el-Dab'a was itself an important source of stylistic innovation, perhaps reflecting its development as a major regional centre, in particular under the Fifteenth Dynasty.

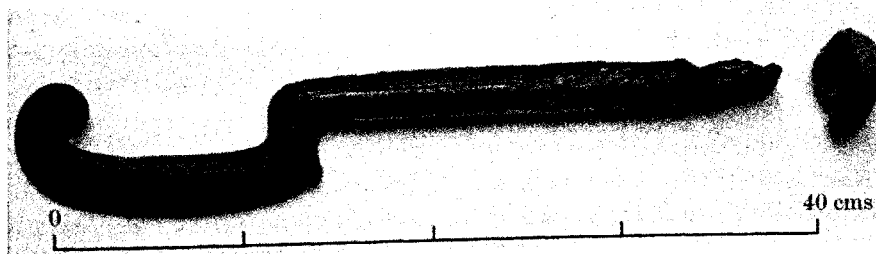


Fig. 60a Curved sword after FORSTNER-MÜLLER (2001: 217, Abb. 19)

3.6.2 Comparison with evidence from the Nile Valley

Despite the adoption in Egypt of daggers with crescent-shaped pommels, and their eventual transmission to societies in Nubia, Egyptian weaponry remained fairly conservative until the New Kingdom. While the west Asian socketed axe forms were widely adopted in the Delta, flat axes were preferred in Egypt throughout the second millennium BC (DAVIES 1987: 54). Egyptian spearheads continued to be hafted using a tang until the New Kingdom, rather than the technically more advanced socket (SHAW 1991: 32), again ignoring practices in the contemporary Nile Delta. On the other hand, archery played an important role in Egyptian warfare, with archery tackle appearing in tomb contexts during the Middle Kingdom, in contrast to its absence from the burials from both the Delta and the Levant before the Late Bronze Age. The adoption of specific elements of material culture was thus highly selective and presumably closely related to local value systems. Not only did the Delta and the Nile Valley differ in terms of their adoption of specific styles and aspects of technology, it is also clear that they differed substantially in their attitudes to weaponry as elements of funerary practices, suggesting that weapons played different roles in their respective ideologies of status and death. To summarize, it seems reasonable to argue that the development and deployment of weaponry in Egypt and the Levant was governed by quite different principles.

3.6.3 Decorated artefacts

A number of weapons were either made from, or elaborately decorated with, precious metals. Axe No. 2193 for example, preserved part of a decorated, silver sleeve, which would originally have been wrapped around the handle. A similar sleeve was present on a fenestrated axe from Byblos (DUNAND 1954–8: pl. 127, no. 148490). Another grave produced two silver spearheads, Nos. 7017 and 7018, and a dagger, No. 6149, exhibiting an elaborate variant of the traditional ribbed decoration on the blade, which was secured to the haft by means of rivets with gold caps. There are good parallels for decorated weapons from the 'Dépôts des Offrandes' at Byblos (e.g. DUNAND 1954–8: 695, pl. CXX, no. 14439), and at both sites these objects conformed to familiar weapon designs. Weapons made in, or decorated using, precious metals occur quite frequently in the textual records from both Tell Mardikh in the late third millennium and from Mari in the early second millennium BC (PHILIP 1989: 153–4 with further references), where they fea-

tured as valued gifts and as status markers for elite individuals.

NORTHERN (1981: 3–4) has developed the concept of the 'ornate implement', objects structurally similar to utilitarian items but which have undergone morphological modification and elaboration and which should be understood as functioning to express cultural values or beliefs. The importance of artefacts as repositories of value is revealed by Egyptian inscriptions such as the Kamose Stela which lists large quantities of copper axes among the precious goods carried away from Avaris, the Hyksos capital (SMITH and SMITH 1976: 60), and the inscription of Amenemhet II from the temple of Ptah at Memphis (ALTENMÜLLER and MOUSSA 1991) which mentions quantities of weapons taken as tribute from the Levant. While Northern's idea seems applicable to certain types of grave equipment at Tell el-Dab^a, I would suggest that no clear division exists between utilitarian and ornate implements. Rather, there is a continuum of variation, extending from simple undecorated examples to highly stylized versions, with all artefacts playing a variable role in the symbolic world depending on particular circumstances. In the case of daggers and axes, all are to some extent 'ornate', in that they show stylistic features unnecessary for mechanical function alone.

What is less clear, however, is how the grave artefacts actually related to the weapons of real warfare. Elsewhere (PHILIP 1989: 149–51), I have noted the existence of marked discrepancies between the range of weapons found in graves and the equipment used in actual warfare, inasmuch as this is described by documentary sources. The tomb autobiography of Ahmose son of Ibana from El-Kab, who served under Ahmose in his campaigns against Avaris, makes reference to the use of a chariot by the Pharaoh (REDFORD 1997: 15), which implies that these were also available to the contemporary elites of the Delta, a point confirmed by their presence among the booty taken from Avaris as listed in the Kamose Stela. As it is hard to see how the dagger-axe combinations seen in the graves could have been employed effectively in the context of chariot warfare, we must conclude that grave goods were more concerned with symbolic communication, than with the provision of current military equipment.

3.7 BELTS AND BELT FASTENERS

Tell el-Dab^a has produced five well-preserved instances of copper-base belts, four of which are treated in detail here. The fifth belt was recently published by FORSTNER-MÜLLER (2001: Abb. 15a).

Site	Context	Publication	Margins	Length	Breadth	Fastening	Material	Decoration
Tell el-Fara ^h (N)	Tomb A. no. 9	DE VAUX and STEVE 1947: 432, pl. XX.1	Folded over	83 cm	6.5 cm	spring clip	copper base	None
Jericho	Tomb J3	KENYON 1960: 313, fig. 117. 3-4	Perforated	72 cm	7.2 cm	spring clip	copper base	Concentric circles
Ras Shamra	Tomb LVI	SCHAEFFER 1938, 240-241, fig. 32, V, W	Perforated	?	8-9 cm	spring clips	copper base	None
Kazaphani	LC I-II	KARAGEORGHIS 1972: 1011 fig. 13	Perforated	?	7 cm	spring clip	copper base	None
Dhali <i>Kafkallia</i>	MC grave	OVERBECK and SWINY 1972: 8, figs. 5-8	Folded over	72 cm	7 cm	metal arc	copper base	None
Kultepe	Level Ib pithos grave	EMRE 1971: 144, pl. XVIa-c, fig. 39	Perforated	80 cm	7 cm	spring clip	silver	Pairs of small circles separated by larger circles

Table 6 Comparison of metal belts from the Levant and Cyprus

Although generally similar in terms of dimensions and decorative style, the individual belts differ in detail, with no two being exactly the same. It seems likely that each was manufactured as a single piece of work. All examples came from graves which produced good assemblages of weapons, and therefore appear to form part of a 'warrior' assemblage (see PHILIP 1995a). Metal belts are first documented in stratum H, and are concentrated in the earlier part of the sequence, with none occurring after stratum F.

Similar belts were widely distributed during the earlier second millennium BC and shared many features in common (Table 6). These included spring-clip fastenings, small perforations around the edge of the metal to permit the attachment of a leather backing, and the use of stamped decoration, frequently consisting of an arrangement of concentric circles. Most examples are made from copper-base, although a silver example has been reported from a Level Ib grave at Kültepe (EMRE 1971: 144, pl. XVIa-c, fig. 39) (see Table 6). Belts were also a 'permanent and practically unchanging element' in Bronze Age votive figurines from the Levant, appearing even when the figure was otherwise naked (SEEDEN 1980: 134). They were frequently depicted with a weapon suspended, usually a dagger, had thick borders and rounded ends buckled in front, and 'appear to have been made of metal fastened on a base of soft material' (SEEDEN 1980: 134). It is worth noting that none of the three well-preserved belts from Tell el-Dab^a revealed either clear evidence for a means of attachment to a backing material, or mineralized traces of such a backing on the inner surface. This might suggest that they were made specifically for use in grave contexts.

Two belts from Palestine have been published, both from burials with weapons. The belt from Tell el-Fara^h (N) Tomb A was found with a single burial in a substantial stone-built chamber which also produced a dagger of Type 17, and meat offerings. The belt had been laid over the deceased, and did not appear to have actually been worn in the tomb. An example from Jericho came from a grave which produced three Type 2 socketed axes and three daggers. Both can be dated to a relatively early point in the MB IIB/C period (Table 6).

The perforated circular metal disc No. 7139 may well be an instance of the use of groups of decorated discs as attachments to embellish leather or fabric belts. Similar discs are known from the 'Dépôts des Offrandes' at Byblos (DUNAND 1954-8: LXIX, nos. 10093-95), the burials of the so-called 'torque bearers' at Ras Shamra (SCHAEFFER-FORRER 1978, 476, fig. 8.1-2) and an MB IIA tomb at Tell et-Tin near Homs, where they were interpreted by the excavator as parts of shields (GAUTIER 1895: 459). All these groups should be placed in the early second millennium BC. There is close resemblance between the discs and the circular decorative elements in the metal belts described above. Similar discs, also described as 'shield bosses' by the excavators, were found in Tomb 6 at Ayios Iakovos in eastern Cyprus, which is dated to Middle Cypriot II-III (GJERSTAD 1934: 319-21, pls. LXII.1, CXLII.13; WEINSTEIN-BALTHAZAR 1990: 428, table 185). Neither belts nor perforated discs have been reported from tombs on Crete.

The existence of metal discs implies that perishable leather or fabric belts were a regular component of grave assemblages. This is also implied by the presence

Site & context	Reference	Weapons
Jericho Tomb D9	KENYON 1965: 285, fig. 103, 6, 7	Two Type 17 daggers
Jericho Tomb J14	KENYON 1965: 323, fig. 103, 10, 11	Type 17 dagger
Jericho Tomb 9	GARSTANG 1932: 46–7, fig. 10	Type 17 daggers and socketed axe
Ras Shamra RS 7.419	SCHAEFFER 1936: fig. 19L	Wide range of later MBA weapon types
Ras Shamra, RS 6.069	SCHAEFFER 1949: fig. 18.28.	Associated material not clearly identified in publication
Tell el-ʿAjjul Tomb 1750	PETRIE 1934: 9, pl. LIX.1750	Axe and dagger

Table 7 Comparative examples of pairs of belt loops found in graves, listing associated weapons

of daggers worn at the waist of a number of interments at Tell el-Dabʿa. As metal belts occur with a relatively low proportion of those burials equipped with daggers positioned at the waist (see 5.2.3), this probably indicates that the daggers were suspended from belts that were made from perishable materials, which were almost certainly far more common than the metal examples. In that light, it may be worth reviewing MOOREY's discussion of semi-circular metal 'loops' with a heart-shaped terminal at each end (MOOREY 1969, figs. 1, 2). While these were classed as belt-fasteners by KENYON (1960: 313), PETRIE (1934: pl. LIX lower right) had previously interpreted these as brooches, a view subsequently taken by MOOREY (1969: 98) on the basis that none had, at that time, been found at the waist of a skeleton. However, there are instances at Tell el-Dabʿa (e.g. No. 6140) where a belt was placed elsewhere than around the waist of the burial, so the absence of these clips from the waist of burials does not in itself demonstrate that they were not belt fasteners. On the other hand, MOOREY (1969: 97) noted that these objects came only from Middle Bronze Age contexts, and often occurred in graves in pairs, which strengthens their connection with belts.

In fact, the attachment of one such looped fastener to each end of a fabric belt would have provided an effective means by which the belt could have been fastened using a thong or metal hook to secure the two terminals. In light of the evidence above concerning the likely significance of belts in grave contexts, a reconsideration of the function of the metal 'loops' is required. In design terms they are closer to the simple metal arc employed to fasten belt No. 4128iii, than the more elaborate spring clips employed in some of the other belts. Indeed in many cases, such fasteners may represent the only evidence for belts. Although a complete review is beyond the scope of the present report, it is worth noting that several pairs of loops from the southern Levant come from graves which also produced weapons (Table 7). That said, the simplicity of the design of the loops

rather suggests that they could have been used for a variety of purposes, so it may be a mistake to assume that all examples served the same function.

The third millennium BC roots of these metal belts are reflected both in the archaeological and the textual record. A circular sheet-bronze disc some 7.5 cm in diameter, with a raised conical central boss surrounded by three concentric circular ridges, comes from the late third millennium BC Tomb 1082 at Mari (JEAN-MARIE 1999: 194, pl. 242.8). This piece, which had a series of circular holes just inside the circumference, presumably for attachment, was found lying on the chest of a female burial, perhaps representing decoration on clothing. JEAN-MARIE (1999: 27) lists several parallels for this object from third millennium sites in Mesopotamia such as Ur (WOOLLEY 1934: 219, pl. 30), Kish (MACKAY 1925: pl. IV-20.23; 1929: pl. 18. 51–8), and Larsa (HUOT 1987: pl. V-3). On the documentary side, the Ebla texts refer to metal belts and decorated weapons being employed, along with fine textiles, jewellery, and quantities of precious metal as 'gifts' for high status individuals (ASTOUR 1992: 57; KIENAST and WAETZOLDT 1990: 43–46). Thus the association between belts, weapons and other 'warrior' paraphernalia and high status can be traced back to the systems of elite definition and reward, which characterized the developing states of late third millennium Syria. While the presence of a gilded bronze belt in a Fourth Dynasty tomb at Giza (HASSAN 1948: 8, pl. VII.4) provides an indication that belts were also employed in tomb contexts in Old Kingdom Egypt, the stylistic connections between the Tell el-Dabʿa material and artefacts from western Asia suggest that the use of belts derived from practices current in Mesopotamia and Syria during the later part of the third millennium BC.

3.8 GOLD HEADBANDS

The headbands from Tell el-Dabʿa all occur in graves, and in several cases are positioned at the skull. Too short to reach around adult skulls, most of these headbands would have been tied at the rear of the

head by a string made from organic materials. However, No. 3047 is sufficiently long to have formed a continuous single band knotted behind the head, and is not perforated at the terminals. Gold headbands of various types are well-documented in high status burials in both Egypt and western Asia, and a brief summary of these traditions will help to place the examples from Tell el-Dab^a in context. These examples span a wide chronological range, occurring as early as stratum F-G/1 and continuing as late as D/3-E/1. The heavy looting of the apparently rich graves in Area F/I might suggest that a number of examples from the earliest strata have been lost.

3.8.1 Western Asia and the east Mediterranean

Several gold headbands were recovered from the Royal Graves at Byblos (MONTET 1928: nos. 644-6, from Tomb II). No. 644 measured around 30 cm in length, which is close to the size of several from Tell el-Dab^a, and bore Egyptianizing symbols in repoussé. Nos 645 and 646 were shorter, measuring around 22 cm in length, were pierced at both ends and bore geometric decoration. Objects inscribed with the cartouche of the late Twelfth Dynasty ruler Amenemhet IV (MONTET 1928 : 644, pl. XCVIII) provide a *terminus post quem* for this tomb, which is no earlier than stratum H at Tell el-Dab^a. Three gold diadems, one bearing impressed circle decoration reminiscent of that on some of the bronze belts from Tell el-Dab^a, appear in Gr. 20 at Assur (HALLER 1954: 10, Taf. 10a), and short bands (c. 21 cm in length) in gold or electrum that were perforated at each end occur in Old Babylonian period graves at Tell ed-Der (GASCHE 1989: pl. 18, D. 4039-42). Tell ed-Der also produced some silver examples dated to the nineteenth century BC (VAN LERBERGHE and MAES 1984: 115, pl. 29E, 3, 4, 6), while the later MBA tomb LVI at Ras Shamra, produced a fragments of a silver headband, pierced at each end. This tomb also produced a metal belt, and several weapons including socketed axes (SCHAEFFER 1938, fig. 32).

Further south, a number of examples are documented at Tell el-^cAjjul. A gold example with pierced, rounded ends like those from Tell el-Dab^a, comes from Grave 1416 in the Courtyard Cemetery (MAXWELL-HYSLOP 1971: 114, fig. 84). A silver diadem was also found in Grave 1 within the city, and another from Grave 1740 (MAXWELL-HYSLOP 1971: fig. 82). The examples from ^cAjjul are decorated with geometric patterns in repoussé. As yet, there are no examples from Tell el-Dab^a of either belts or headbands fastened by means of a pin mounted in a cylindrical sleeve, although examples are documented at Tell el-^cAjjul (MAXWELL-HYSLOP 1971: 108). Also absent are

hinged, loop-fastenings as seen in Tell el-^cAjjul Grave 1203 (MAXWELL-HYSLOP 1971, fig. 83). This leads one to suspect that the material excavated from Tell el-Dab^a represents only a small part of the range of headbands likely to have been in use at the site.

Tens of diadems, generally in gold, are reported from Crete and the Aegean (BRANIGAN 1974: 37, pl. 20), suggesting that these formed part of the paraphernalia of international elite imagery. The Aegean examples are usually parallel-sided bands bearing decoration in repoussé, with ends that are rounded or squared-off, and usually perforated (BRANIGAN 1974: pl. 37). Lengths vary between 10 cm and c. 40 cm, with most measuring around 2.5 cm in breadth.

Headbands were not a MBA innovation, however. Both gold and silver examples were recovered from third millennium BC graves from sites such as Ur (MUSCHE 1992: 73, with further references), where at least three different forms are documented (TALLON 1987: 277). Third millennium BC examples from Syria include a sheet-gold headband from Tomb 1096, at Mari and a silver diadem from a tomb at Tell Umm el-Marra near Aleppo (JEAN-MARIE 1999: 194-5, pl. 242; SCHWARTZ *et al.* 2003: 330, fig. 7); both were associated with female burials. The example from Mari measured some 37 cm in length with each end rounded-off and perforated. Gold bands are also known from Tell Mardikh IIB1, and from sites in Anatolia (MUSCHE 1992: 104-7). Only one of these types, the parallel-sided strip of metal, has been reported from Tell el-Dab^a.

In fact, the type appears prior to the third millennium, with simple sheet metal bands known from fourth millennium BC contexts in western Asia. For example, a gold band comes from Tepe Gawra Level X (TOBLER 1950: 116, 199), and one in silver from Byblos Énéolithique (DUNAND 1973: 320). The band from Tepe Gawra measures 37.4 cm in length and 1.4 cm in breadth, and has perforated terminals. It is therefore comparable in size and style to those from Tell el-Dab^a. This implies that the Dab^a examples conformed to a basic design that was already of considerable antiquity by the time it first appeared in the Nile Delta.

3.8.2 Egypt

Diadems of various styles appear in Middle Kingdom tombs, including open work and wire examples, and others bearing a variety of attachments (ANDREWS 1990: 102-7; WILKINSON 1971: 70-5). Headbands were of considerable antiquity in Egypt however, with solid metal circlets documented in Old Kingdom contexts (ALDRED 1971: 130; ANDREWS 1990: 102;

WILKINSON 1971: 37–40; for a First Dynasty example see REISNER 1908, pl. 5). The statue of Nofret confirms that diadems bearing decorative attachments were in use during the Old Kingdom (ANDREWS 1990: 103, pl. 81). Bands were worn by both males and females, and became the subject of specialized terminology in the coffin texts (ANDREWS 1990: 102–105).

ANDREWS (1990: 107) further notes that some Egyptian headbands were based upon a ‘fillet’ of cloth tied around the head, which was knotted at the back allowing the two loose ends to hang down. The short, perforated bands from Tell el-Dab^a are examples of this technique. While ALDRED (1971: 132) suggests that the former replaced circlets during the New Kingdom, ANDREWS (1990: 107, pl. 22) observes that the earliest surviving *in situ* fillet is from the Thirteenth Dynasty tomb of Princess Nubhotepti, daughter of the pharaoh Hor (RYHOLT 1997: 73, 83) at Dashur. A very similar example came from the tomb of the Seventeenth Dynasty ruler Nubkheperre Intef at Thebes. It is clear therefore, that fillets were in use in Egypt by the later Middle Kingdom, but that these examples are later than the appearance of a significant Asiatic presence at Tell el-Dab^a. There is nothing currently to suggest that this particular style represents an indigenous Egyptian tradition, rather than one adopted from western Asia.

The unprovenanced electrum circlet from the Nile Delta (allegedly from Salhiya), now in the Metropolitan Museum in New York, has been taken as being of Hyksos manufacture (WILKINSON 1971: 204, pl. 59). Among other things, it features an attachment in the shape of the head of a deer with large antlers, a species which is not native to Egypt. If this headband was indeed produced in the Delta, it would demonstrate that the Tell el-Dab^a headbands represent just one part of the range of Delta production. The use of attachments, however, does seem to represent an Egyptian tradition.

It is clear then, that the basic concept of headbands was widely established in both western Asia and Egypt by the early third millennium BC, and that their use in both regions may represent the adoption by Egyptian elites of items of high-status material culture from the Mesopotamian world, perhaps during the initial phase of state formation in the late fourth millennium BC (JOFFE 2000; WILKINSON 1999; 2002). That said, the particular form best documented at Tell el-Dab^a, the band with perforated ends, did not appear in Egypt until it was already well-documented along the Levant coast and in the Delta. To summarize, despite some local typological variations in stylistic or iconographic details, head-

bands are probably best seen as constituting one element of a widely understood system of elite representation that was present, albeit in localized forms, throughout the east Mediterranean basin during the early second millennium BC.

3.9 STANDS AND LIDS

3.9.1 Stands

Ring-shaped, biconical metal stands first appear in Stratum F and continue in use until stratum D/3. They were intended to support ceramic vessels, and almost certainly represent a metal version of the familiar ceramic ‘ring-stands’ which are common at the site (BIETAK 1991a: Abb. 213, 3–6.). Elsewhere in Egypt, examples appear in various materials, including faience (BOURRIAU 1988: 130, No. 124). Like the metal examples, the ceramic stands are also characterized by having one rim of larger diameter than the other, as well as thickened upper and lower margins. It is unlikely that these characteristics would be repeated with such regularity other than through deliberate intent.

Stands of this form belong to the Egyptian rather than the Levantine repertoire of ceramic forms, and are present at the site from the Middle Kingdom onwards, continuing to the end of the Hyksos period occupation (CZERNY 1999: 106–7; FUSCALDO 2000: 76–7). Some ceramic stands were recovered from graves (BIETAK 1991a: 50–1, Abb. 23.8) and others from offering deposits (BIETAK 1991a: 168–9, Abb. 128.5, 248, Abb. 215.7). MÜLLER (1998: 798) observes that ceramic stands comprise a common element in offering deposits, including those from graves, where they are believed to have been associated with funerary meals. With one exception, the metal stands also come from groups of material associated with mortuary activities and appear to have been employed in a manner similar to that of their ceramic analogues.

While the evidence from Tell el-Dab^a expands the limited corpus of metal stands of Second Intermediate Period date (RADWAN 1983: 93–4), examples of the latter are by no means unique to the Nile Delta. Many stands of New Kingdom date are taller, and feature a more marked constriction than is the case with those from Tell el-Dab^a (cf. RADWAN 1983: 165–8), stressing the homogeneity of the Tell el-Dab^a material. That said, some Eighteenth Dynasty examples are more akin to those from Tell el-Dab^a. Examples include a stand from Lisht (RADWAN 1983: no. 458), and one found below the Taharqa Temple at the fort of Semna (*Boston Museum of Fine Arts* 1982: 119, no. 105).

3.9.2 Lids

Although Nos. 1653 and 3078 come from contexts which also produced a metal stand each (Nos. 1654 and 3078 respectively), the relationship between lids and stands is not clear. However, given that metal biconical stands appeared in only four closed contexts, the presence of lids in two of these is unlikely to be coincidental. In both cases the diameter of the lid exceeds that of the rim of the associated stand, and it could therefore have rested securely upon it. There is less evidence, however, for the existence of lids for ceramic stands, perhaps indicating a subtle distinction in the ways in which metal and pottery stands could be employed.

Lid Nos. 2206 and 2207 have already been described in Chapter 2. They were found in a secondary context, which post-dates the reign of King Neferhotep I by more than a century. The circumstances of their final deposition are thus unlikely to have anything to do with their original purpose. BIETAK (1991a: 256) has suggested that the lids were perhaps defaced during the Hyksos period against a background of religious or political antipathy toward the former Egyptian rulers. Laboratory analysis (Table 18) revealed the presence of 1.6 per cent gold in one of the lids (No. 2206), which may indicate the use of gilding or a specific decorative technique (see 4.4.5 for further discussion).

3.10 PINS AND TOGGLE-PINS

3.10.1 The use of pins in grave contexts

When pins from grave contexts alone are examined (Table 8), it is clear that although they are present from stratum H onwards, those from the early strata offer limited possibilities for analysis. Indeed, the single stratum H example was found in the grave pit, and is therefore not in direct association with the burial. The earliest *in situ* pin comes from F/I-i/22 Gr. 34 and consists of several fragments located by the head of the burial. In general, however, the pins from strata H and G are poorly preserved, and it is not possible to assess their typology. The five pins from stratum F include the single example with a segmented globular head No. 4966. The remaining pins are either poorly preserved or appear to be undecorated examples with a cylindrical head. Strata E/3–F to E/I have produced several pins that come from robber pits or other disturbances cut into graves. In these strata, one or two pins are also associated with infant burials, and a few silver pins are also present.

Overall then, pins begin to appear in significant quantities in graves from strata F or E/3, and they

Stratum	Grave finds	Non-funerary contexts
H	1 (in grave pit)	1
G/4–H		1
G/4		
G/1–3	2	1
F–G/1	1	
F	2	3
E/3–F	2	3
E/3	5	3
E/2–3	2	
E/2	2	2
E/1–2	1	1
E/1	11	3
D/3–E/1	7	2
D/3	4	1
D/2–3	5	2

Table 8 Distribution of pins by stratum

show a particular concentration in strata E/1 and D/3. It is not clear to what extent this reflects reality, as opposed to the disproportionate looting of earlier tombs, or even differences in the total number of burials belonging to each period. However, the presence of numerous other metal items, weapons in particular, in graves from strata H and G, suggests that looting alone does *not* constitute an adequate explanation for the infrequency of pins. It is therefore interesting to note that the MBA grave-record of Palestine reveals a marked increase in the percentage of tombs containing pins as the period progressed (HALOTTE 1995: 114, fig. 9), suggesting that the evidence from Tell el-Dab'a might therefore be part of a wider trend (Table 8).

3.10.2 Pins from non-mortuary contexts

A little over one-third of the pins at Tell el-Dab'a come from non-funerary contexts. A good number were isolated finds in settlement contexts, and may represent the debris of looted graves, or the result of material redeposited during the digging of later pits and foundation cuts, or perhaps even accidental loss. That said, a significant number do appear to come from intentional deposits. The contextual aspects of pins are therefore treated in Chapter 5. Pins from non-funerary contexts are concentrated in stratum F and the succeeding strata (Table 8), and their chronological patterning broadly parallels that demonstrated by the grave finds.

3.10.3 The pins from Tell el-Dab'a in their near-eastern context

The two major studies of ancient toggle-pins each have drawbacks. KLEIN's (1992) comprehensive study of pins covers Iran, Mesopotamia and Syria but excludes the southern Levant, the area most relevant to our interests. While this region was covered in considerable detail by HENSCHEL-SIMON (1938), this work is now substantially out of date, and there exists no recent review of the evidence from a pan-Levantine perspective.

3.10.3.1 Silver pins

A form with horizontal flanges not found among the more numerous copper-base pins, appears characteristic of silver toggle-pins. These pins would almost certainly have been cast in a two-piece mould. A steatite mould with a matrix for casting pins of just this type is now in the Homs Museum in west-central Syria (MOUSLI 1988–9: 364, Abb. 162–5).

Pins with a flange around the shaft are well-documented in the northern Levant. A number of examples from MBA contexts in western Syria (KLEIN 1992: 105, Taf. 112, 9–12) have a large, flat segmented-head, the lobes of which resemble flower petals. Examples with segmented, spherical heads of KLEIN's (1992: 111–12, Taf. 115: 12–18) Type I.12B2c, are concentrated in Middle Bronze Age contexts at sites such as Ras Shamra, Yabrud, and Alalakh (KLEIN 1992: 114–15). Four pins with spherical heads and discs attached to the shaft were reported from Middle Bronze Age II houses of Schicht X at Halawa in the Euphrates Valley (NOVAK 1994: Taf. 26, 7, 8). While all of the Syrian examples discussed by KLEIN were copper-base, one of the examples from Halawa has a gilded surface implying that this style of pin was deemed appropriate for prestige functions. In contrast, all the examples from Tell el-Dab'a were in silver. Moreover, at Tell el-Dab'a the disc was usually, but not exclusively, perforated while this was not the case in the Syrian examples.

Silver pins do, however, occur elsewhere in the Levant. The four pins published from the Kharji tombs in Beirut (SAIDAH 1993–4: 186, pl. I, 1–4) include no less than two silver examples. However, exact typological parallels for the Tell el-Dab'a silver pins are rare in the southern Levant. None have been published from the extensive collections recovered at Jericho or Megiddo for example. A good parallel made in silver was, however, found in a MB II B/C tomb at el-Jisr, 14 km south of Jaffa (ORY 1946: 37, pl. XIII.45). This may indicate that the distribution of silver pins of this specific type was concen-

trated in the Delta and the nearby regions of southern Palestine.

While the northern connections indicated by both style and the use of silver might explain the rarity of this type of pin in Palestine, their distinctive typology might be read to suggest manufacture in the Nile Delta. The presence of elaborate heads on the Syrian pins raises the possibility that the examples from Tell el-Dab'a may have been intended to mount heads in the form of beads, a practice which is documented in Mesopotamia (KLEIN 1992: 193–4). It is also worth noting that the grave evidence shows that silver pins were employed, at least in funerary contexts, in the same way as copper-base examples (see 5.2.9).

3.10.3.2 Copper toggle-pins with ribbed decoration

Pin with segmented globular head

No. 4966 has a segmented globular head mounted on a perforated shaft bearing ribbed decoration above the perforation. It has good specific parallels at Kültepe II and Ib, one of which is made from silver (KLEIN 1992: 107, Taf. 113, 6–7). More general parallels for the combination of perforated shaft and segmented head fall into KLEIN's (1992: 107–8) Type I.12A2, which occurs in both silver and copper-base across an area extending from the Karum at Kültepe in central Anatolia, through west Syrian sites such as Tell et-Tin, Ras Shamra (Ugarit Moyen 2), Alalakh, and Hama. Several of these have rings passing through the perforation. The stratum F date of No. 4966 at Tell el-Dab'a is consistent with that of many of the Syrian examples. It is interesting that the stylistic links for these pins, and the silver pins discussed above, extend not just to the northern Levant, but also into Anatolia. This reveals the extent to which similar forms of 'luxury' item were used throughout a wide expanse of western Asia during the MBA. It also reveals that the Nile Delta participated actively in a stylistic universe that covered much of the east Mediterranean world.

Pin with vasiform head

Pin No. 5510 has its best parallels in KLEIN's (1992: 118, Taf. 18) Type I.13A3c. Most of the parallels have rather larger heads however (cf. KLEIN 1992: Taf. 120.8–12). Two of these come from early second millennium BC contexts at Byblos, one from the offering deposits of the 'Champs des Offrandes'. This is intriguing, since the Tell el-Dab'a example comes from Kovolut 3187, which represents a deliberate deposit in a courtyard rather than a grave.

Pins with cylindrical head

This form of pin has its best parallels in KLEIN's

(1992: 55, Taf. 72–3) Type I.4A6, many of which have rings passing through the perforation. This is a practice first encountered during the second millennium BC (KLEIN 1992: 236), and which is well documented at Kültepe Ib, as well as various sites from Syria and the southern Levant during the MBA (KLEIN 1992: 249). The ring would have allowed the suspension of a string of beads, amulets, or perhaps a cylinder seal (KLEIN 1992: 249; 1983). There is no clear evidence for this at Tell el-Dabʿa however, which might hint at the development of specific local practices regarding pin-use in the Delta.

The distribution of this pin-type shows a clear concentration in MBA sites in the Levant. Although there are some stylistic variations, the basic form is a circular perforation through a thickened part of the shaft located around the mid-point of the pin. Decoration, if present, consists of a series of lightly incised grooves or a moulded 'beading' which encompasses all of the shaft above the perforation, and frequently extends a short way below. Pins of this form have numerous parallels in MBA graves from the southern Levant, for example at Jericho where they constitute KENYON's (1960: 297) Types F and G and at Tell ed-Duweir (TUFNELL 1958: 79–80, pl. 24.4–5).

3.10.3.3 Toggle-pins with plain shafts

This form of pin has its best parallels in KLEIN's (1992: Taf. 79–80) Type I.6A1. The distribution of this form is predominantly in the Levant, although some examples are documented in late third millennium BC contexts in the Euphrates valley. In general, earlier examples are perforated near the upper end of the shaft, and Middle Bronze Age pins towards the centre of the shaft.

Pin with rolled head

The single example of a pin with a rolled head at Tell el-Dabʿa, No. 927, belongs to KLEIN's (1992: 122–3, Taf. 123–5) Type I.14B1. This is a very common group, examples of which span the late fourth millennium BC through to the Late Bronze Age, and which are distributed from Iran in the east to the Levantine coast in the west. Although this was a surface find, its presence at the site highlights the *absence* from the local grave repertoire of what was a very common class of pin. This underlines the highly selective nature of the pins that were placed in graves, and indicates that pins with rolled heads, while in wide circulation, were not deemed appropriate for use in funerary contexts.

In comparison to the variety of pin-types represented at Palestinian sites such as Tell el-ʿAjjul or

Jericho, the range of forms documented at Tell el-Dabʿa is quite limited. In the MBA tombs from Jericho for example, the corpus of toggle-pins is dominated by three main types: pins with plain cylindrical shafts, similar pins but with disk heads, and examples with moulded shafts. On the other hand, pins with lightly incised decoration on the shaft are relatively infrequent (KENYON 1960: 297; 1965: 200–1). At Tell el-Dabʿa, in contrast, pins with disk heads, and examples with moulded shafts are unusual, while examples with shafts bearing lightly incised decoration are present in significant numbers.

3.10.4 Comparison with Egypt, Cyprus and the Aegean

3.10.4.1 Egypt

The inclusion of numerous pins is one of the characteristic features of the grave record at Tell el-Dabʿa. This constitutes a clear contrast to burial practices in the Nile Valley from where toggle-pins are not reported, and suggests, at the very least, significant differences in the treatment of the deceased. Against this background, the absence of a toggle-pin from the richly furnished burial A/II 1/12 Gr. 5, which had been placed within a wooden coffin (BIETAK 1991a: 51–3, Abb. 25), is intriguing. Perhaps this individual had been buried without the shroud pinned at the shoulder, which appears to have been a common feature of burial practices at Tell el-Dabʿa. The survival within the coffin of a pair of tweezers (No. 813), suggests that this cannot be dismissed as a matter of small artefacts deteriorating within an unfavourable burial environment. In addition, this tomb contained large quantities of meat offerings, including the skull and the shoulder of a pig (BIETAK 1991a: 58), an animal usually conspicuous by its absence from 'sacred' locations in the Levant (MAGNESS-GARDINER and FALCONER 1994: 142; WAPNISH and HESSE 2000: 448) and seen as of little importance to MBA Levantine animal economies, despite its value as a meat-source (GRIGSON 1995: 252, fig. 6).

3.10.4.2 Cyprus and the Aegean

Toggle-pins, like other metal types, show a rather uneven distribution. They are rare in the Aegean, where they are documented predominantly from Troy and Samos, rather than from Crete for example, which suggests a western Anatolian connection in these instances (BRANIGAN 1974: 36).

The situation in Cyprus also differs from that in the Levant. There, unperforated pins were common during the EC III–MC II periods and were used to fas-

ten clothing, or perhaps a shroud in the case of burials, at the shoulder of the interment (WEINSTEIN-BALTHAZAR 1990: 390–2). This style of pin, which appears to be local to Cyprus, has few good parallels in the Levant where toggle-pins were the dominant form. The latter became common on Cyprus around the end of Middle Cypriot I and came to replace unperforated pins during MC II–III (WEINSTEIN-BALTHAZAR 1990: 408–10). However, many of the toggle-pins which are found on Cyprus are of forms that lack close stylistic parallels at Tell el-Dabʿa (ÅSTRÖM 1972: 146–8, figs. 13, 14; WEINSTEIN-BALTHAZAR 1990: 411–12, tables 167–71). These include pins with elongated perforations, those with plain flat heads, and large domed or hemispherical (mushroom) heads. The latter were particularly common at the cemetery of Lapithos *Vrysi tou Barba* during MC II–III (WEINSTEIN-BALTHAZAR 1990: 409, table 171), but examples have not yet been found in the Delta.

Overall, the Cypriot and Delta pin styles remained quite distinct for the greater part of the Middle Cypriot period with most Cypriot toggle-pins being hammer-formed. However, the appearance around MC III–LCIA of pins with conical heads and bearing incised-decoration appears to indicate the adoption of the mainland practice of using two-piece moulds. Pins of this type occur mostly in the centre of the island, as did the contemporary shaft-hole axes which were also produced using two-piece moulds (WEINSTEIN-BALTHAZAR 1990: 409, table 172). CATLING (1964: 74, figs. 6.6, 8) illustrates two pins (both without provenance) with a beaded upper shaft and a segmented head that he considers of non-local origin. He mentions in passing, however, an example from a MC III grave group from Leondari *Vounou*, located several kilometres south of Nicosia, which was excavated by JAMES in the 1880s (JAMES 1888). This pin, which is now in the Fitzwilliam Museum in Cambridge, was subsequently illustrated by JACOBSTHAL (1956: 153, fig. 476) and featured a spherical head with twelve segments, as well as a beaded shaft bearing a horizontal disc. While clearly related to mainland styles, this pin would be as much at home in the northern Levant as in the Nile Delta. However, the appearance of new pin styles during MC III appears to confirm the eastward orientation of central Cyprus at this time, as Late Cypriot pins do appear to have better parallels on the mainland than do the Middle Cypriot examples (e.g. ÅSTRÖM, L. 1972: fig. 63, nos. 2–5).

3.10.5 The development of toggle-pins in the Levant

Toggle-pins first appeared towards the end of the fourth millennium BC and became common during

the third millennium (KLEIN 1992: 237). As far as Syria-Palestine is concerned, toggle-pins are first documented in large quantities in EB IV graves in the Euphrates Valley. Common forms include those with spherical heads and a bent-shaft, Klein's Type I.8A3 (KLEIN 1992: 77–8, Taf. 89, 90.1), and those with a hemispherical head, Klein's Type I.9A1 (KLEIN 1992: 83, Taf. 95–7). The widespread use of toggle-pins in this area probably constituted the immediate source for their adoption in the grave assemblages of the coastal Levant, where (on present evidence) they first appear in the archaeological record around 2000 BC. That said, in the absence of a good corpus of mid to late third millennium BC burials from the north coastal Levant, an earlier appearance is possible. This reconstruction gains support from the fact that toggle-pins appear in the southern Levant during the EB IV period which spans the final centuries of the third millennium BC (PALUMBO 2001: 255–6), during which they are concentrated in northern Palestine and Transjordan, and seen as of Syrian inspiration (PRAG 1974: 93–5).

There are, of course, typological distinctions between MBA Levantine and EB IV north Syrian styles. In the Levant, MBA pins are rarely more than 12 cm in length, generally with cylindrical heads, and frequently bear ribbed decoration on the upper part of the shaft and round perforations placed around the mid-point of the shaft. In contrast, the classic Syrian EB IV pins are longer, frequently with a hemispherical head, and a plain shaft with an ovoid perforation located close to the head. The former were probably often produced in two-piece moulds, the latter by hammering.

Subsequent to their introduction to the coastal Levant, toggle-pins were to become a recurrent and long-lived feature of local grave assemblages. Their introduction to Tell el-Dabʿa should be seen as part of this process. However, the evidence from MBA cemeteries in the middle Euphrates Valley, such as those at Mari and Baghouz (DU MESNIL DU BUISSON 1948; JEAN-MARIE 1999: 38–9), indicates that the great elaboration of toggle-pin styles witnessed in the Levant was not paralleled in Mesopotamia. There, the MBA saw a decline in the deposition of toggle-pins in graves, while the forms were mainly a continuation of EB IV styles. The rich stylistic repertoire documented in the Levant during the MBA does not appear to occur in the Euphrates Valley, and points to a divergence in practices relating to the use, and perhaps symbolism, of toggle-pins in the Levant and 'Greater Mesopotamia'. This position is consistent with JEAN-MARIE's (1999: 39) suggestion that there was a signifi-

cant change in the symbolism of material culture between the second half of the third millennium and the first half of the second millennium. The key point is, of course, that while both Mesopotamia and the Levant witnessed significant change in the symbolism of material culture over this period, the form taken by these changes was different in each case (see 6.3.2).

In fact, the adoption and subsequent development of the toggle-pin in the Levant is best seen as but one instance of the appropriation of items of material culture from inland Syria (although ultimately of Mesopotamian origin). This is a process which can be differentiated from the adoption of material culture by the fact that the appropriation of an artefact (or practice) does not necessarily imply the transfer of all of its original symbolic or ideological connotations. Rather, the item is incorporated into the system of values and meanings relevant to the recipient community, which may be quite different from those of the donor culture. This is what the long-lived, stylistic development of toggle-pins in the Middle and Late Bronze Ages of the Levant (HENSCHÉL-SIMON 1938), contemporary with their apparent decline in Mesopotamia, appears to imply. The broad spatial distribution of toggle-pins should therefore not lead us to assume the existence of universal modes of usage or common symbolism.

3.11 PERSONAL ITEMS

3.11.1 Mirrors

Three mirrors have been found at Tell el-Dab^a. They all came from Area A/II, and from graves dating to stratum F or later. Flat, tanged mirrors such as these are a common feature of Egyptian burial customs, with Middle Kingdom examples described as being 'elliptical or circular – with short tangs'. In fact, the relatively short, slightly tapering tang on No. 2658 suggests that its closest links lie with late rather than early Middle Kingdom forms (LILYQUIST 1979: 52–5, figs. 46, 80).

Before assuming that the use of mirrors in tombs at Tell el-Dab^a represents the adoption of an Egyptian practice, it should be pointed out that flat, sub-circular, tanged mirrors have been reported from several third millennium BC sites in Mesopotamia and Iran (TALLON 1987: 289–90), such as Kish (WATELIN and LANGDON 1934: pl. XIX. 1–3). More westerly examples are known from rich third millennium BC graves along the Syrian Euphrates such as Tomb 300 at Mari and the Hypogeum at Tell Ahmar (JEAN-MARIE 1999: 133, pl. 45. M.1479; THUREAU-DANGIN and DUNAND 1936: pl. XXIX). As all of these exam-

ples are of the same basic form, a sub-circular disc with a short metal tang, it is hard to say whether the use of mirrors at Tell el-Dab^a represents the adoption of an Egyptian practice, or simply the continuation of a west Asian one.

Perhaps the use of mirrors is best viewed as a practice which had been adopted by elites in both Egypt and the Levant by the early second millennium BC. A case in point is the presence of silver mirrors in the Royal Graves at Byblos (MONTET 1928: 161, pl. 98 [no. 615], pls. 92, 93 [no. 616]). While these might represent Egyptian workmanship, the very fact that they were made from silver, which was scarce in Egypt but mined in Anatolia, might suggest that these represented local products.

3.11.2 Tweezers

Three pairs of tweezers have been reported from Tell el-Dab^a, all from graves attributed to stratum F or earlier. In contrast, tweezers have rarely been reported from MBA graves in the southern Levant (HALOTTE 1994: Appendix C). Four examples came from Tomb 62 at Pella (SMITH and POTTS 1992: 76), but the material from this grave spans the transition from the Middle to the Late Bronze Age, and should therefore be placed after, or close to the end of, Hyksos activity at Tell el-Dab^a. Thus the presence of tweezers at Pella could be seen as derivative, perhaps inspired by Egyptian New Kingdom styles. Examples from MBA graves in the northern Levant come from Majdalouna in southern Lebanon (CHÉHAB 1940: 46, fig. 8a), and Tomb LV at Ras Shamra (SCHAEFFER 1938: 232–3, fig. 27H), a grave that produced several weapons resembling the well-known Cypriot 'knives' (see PHILIP 1991b: 76, fig. 8). Tweezers are not common finds however.

Both northern examples conform to what Åström, in a discussion of the Cypriot material, (ÅSTRÖM 1972: 142) terms the 'pinched-spring' form and that from Ras Shamra, was associated with a considerable quantity of metalwork of Cypriot style (SCHAEFFER 1938, 224, fig. 27H, M, O, Q). Given the frequency of tweezers as grave goods on Cyprus (see below) the origin of the tweezers may in this instance lie in the Cypriot connection.

According to PETRIE (1917: 51, pl. LXII. Y1) tweezers are documented in Egypt as early as the First Dynasty. However, they occur only sporadically prior to the New Kingdom, at which point they become more frequent. While the adoption of tweezers in the Delta could be of Egyptian inspiration, the lack of examples from graves post-dating stratum F, and the absence from Tell el-Dab^a of the razors

which formed an integral part of the personal grooming kit of Egyptian elites of the Middle Kingdom (*Boston Museum of Fine Arts* 1982: 189), argues against this. In fact, the much greater quantity of grooming tools such as razors, mirrors, and tweezers found in Second Intermediate Period tombs at Thebes (SMITH 1992: 207–8, table 10) serves only to highlight the paucity of such items in graves from the Delta. The absence of the classic Egyptian toilet equipment from many wealthy graves at Tell el-Dab'a suggests that the styles of personal grooming associated with Egyptian elites may have played little part in the visual symbolism of the high-status individuals buried at Tell el-Dab'a. Perhaps an alternative origin should be sought?

Recently, tweezers of a design similar to those from Tell el-Dab'a have been identified in wealthy EB IV graves at north Syrian sites such as Tell Banat Tomb 1 (PORTER 1995: 23, table 1, fig. 7. A. 386), Halawa Grave H-123 (ORTHMANN 1981: 57, pl. 71. 9), and Jerablus *Tahtani* (PHILIP n.d.) in the Euphrates Valley. This fact suggests that the appearance of tweezers in strata H–F at Tell el-Dab'a reflects an awareness of the symbolism of elite personal grooming practices current in Syria around the end of the third millennium BC. A Syrian rather than an Egyptian origin is made more likely by the fact that tweezers are common in both Cyprus and the Aegean from the late third millennium BC onwards. It would be wrong, however, to assume that the presence of tweezers in all these areas meant that they had either a universal practical function or a symbolic role. That said, it is interesting that copper tweezers of simple U-shaped design with expanded terminals, the very type occurring at Tell el-Dab'a, appeared among the finds from the Pan Graves at Mostagedda (BRUNTON 1937: 108, pl. LXXV, tombs 3240 and 3134). This cemetery also produced a dagger with crescent-shaped pommel and two silver torques, all material with strong west Asian associations (BRUNTON 1937: 118–19, pl. LXXIV lower, LXXV).

In Cyprus, tweezers appear in Early Cypriot III contexts and continue to be deposited in graves until the Late Cypriot I (WEINSTEIN-BALTHAZAR 1990: 384), a *floruit* which covers the entire Middle Kingdom and Second Intermediate Period occupations of Tell el-Dab'a. However, those Cypriot forms with the best typological parallels in EB IV Syria are STEWART's 'bow or loop' tweezers, which he sees as 'the simplest form' (STEWART 1962: 250, fig. 100.27), and which appear around the transition from EC IIIB–MCI. This form can be equated with ÅSTRÖM's (1972: 142, fig. 11.9) 'tweezers with round top', a style which was

common in the Middle Cypriot deposits from the cemetery at Lapithos *Vrysi tou barba*, and which might be interpreted as a 'fossilization' on the island of late third millennium Syrian styles.

In the Aegean, tweezers appear around Early Minoan II and cease in the Late Bronze Age (CATLING 1964: 228; BRANIGAN 1974: 32). The best Aegean parallels for the Tell el-Dab'a examples are BRANIGAN's (1974: 31) Type II, in which the arms widen towards the tips, a style which is sometimes termed spatulate and which became the dominant version in Egypt from the Old Kingdom onwards (*Boston Museum of Fine Arts* 1982: 189; VANDIER D'ABBADIE 1972: 163).

The appearance of tweezers in both Crete and Cyprus in the late third millennium BC appears to predate the evidence for significant contacts between Egypt and either of these islands – MM I–II on the former (BETANCOURT 1998: 8; WATROUS 1998: 21) and the Middle Cypriot period in the case of the latter (PELTENBURG 1996: 28). The notably limited evidence for imported objects from Cyprus during the period c. 2400–1700 BC has been usefully tabulated by KNAPP (1994: 280, table 81). Thus it is unlikely that the adoption of tweezers on the islands was inspired by Egyptian practices. Rather, it makes better sense to view the adoption of tweezers in various parts of the east Mediterranean at the end of the third millennium BC as one component of a wider, and probably selective, appropriation of styles of elite material culture which took shape in Syria during the late third millennium BC. The increasing use of weapons and metal pins in burial contexts would represent other such elements.

In Egypt the wearing of beards, and a hirsute appearance generally, was associated with uncleanness (*Boston Museum of Fine Arts* 1982: 189). The contrast between bearded Asiatics, and clean-shaven Egyptian men is a recurring feature of Egyptian representational art, reinforcing the impression of a difference in physical presence between the two groups. The concentration of tweezers in stratum F and earlier suggests that while they were associated with (unknown) elements of personal grooming, they had a significance in the Delta which was specific to a particular period of time. While tweezers appear to have continued in use in Cyprus and Crete, and of course in Egypt, down to the end of the MBA, the absence of tweezers in stratum E/3 and later contexts echoes the rarity of the form in south Levantine graves. This apparently minor detail may convey important social and symbolic information concerning the self-image of Delta elites during the Second Intermediate Period.

3.11.3 Rings

Rings occur in a wide range of sizes at Tell el-Dab^a, which is probably indicative of their different functions. To judge from their design and context, most were either earrings or finger-rings. Most rings are made from silver, although gold examples of both ear- and finger-rings also occur. Copper-base examples are rare and come almost entirely from settlement rather than burial contexts.

3.11.3.1 Rings: typology and chronology

Earrings

These are penannular rings of 2–3 cm in diameter with tapering terminals, which can either overlap slightly or be separated by a small gap. They often occur in pairs, occasionally as two pairs, and are generally found in the vicinity of the head of the burial. These rings are predominantly made from silver, but a few gold examples also occur. Although concentrated in the later strata, the form appears as early as stratum H, but it is unfortunate that the earliest examples occur in poor contexts. The ring from stratum H is from the pit of a disturbed grave, while another comes from a pit containing donkey remains located in front of grave F/I o/17 Gr. 4. One earring (the sole copper-base example) comes from a stratum G/1–3 burial, and two examples occur in secure stratum F graves. The use of earrings was clearly well-established at Tell el-Dab^a from an early point in the sequence. Rings become increasingly common in later strata, although the picture is distorted by the existence of a few graves that produced several earrings each. For example, three stratum D/3–E/1 graves produced some fifteen rings between them.

Small penannular silver rings

This group consists of small penannular silver rings of which the diameter is less than 1.5 cm. These rings, when found in primary contexts, are generally associated with infant burials. All examples were made from silver and when excavated *in situ* they occur in the vicinity of the head, suggesting that they were earrings, e.g. Nos. 1928, 2303, 2325. These rings occur from stratum F through to stratum D/3.

Finger-rings

In terms of size, finger-rings overlap with the range of sizes found in earrings. They appear in fewer graves than earrings, but like the former are made from silver or, less commonly, gold. However, finger-rings, especially if designed to mount a scarab, comprise less than three-quarters of a circle. The scarab was usually mounted by means of a bezel which was

Stratum	Earrings	Small Earrings	Finger-rings
H	1		
G/4–H			
G/4			1
G/1–3	1		
F–G/1	1		
F		1	
E/3–F		1	
E/3	1		
E/2	1		
E/1–E/2			1
E/1	1	2	1
D/3–E/1	4	1	1
D/3			
D/2–3	1		

Table 9 Number of graves containing the three main categories of ring, arranged by stratum (examples from primary contexts only)

attached to the ring by a small coil of wire at each end (e.g. No. 5091). The rings were therefore required to have a gap between the terminals of sufficient size to allow the bezel to be fixed. This gap should provide a way to differentiate between finger-rings and earrings. However, one ring consisting of a continuous circle of metal, No. 2921, was also found by the left hand of an adult female burial, thus indicating that not all finger-rings were designed to take scarabs.

Spiral rings

Spiral rings measure between 1.5 and 2 cm in diameter, and consist of a length of metal which has been bent round to form approximately one and one-quarter circles. In contrast to the finger and earrings, all three of the rings of this type found at Tell el-Dab^a were made from copper. Their function remains problematic, as none were found *in situ*. One possibility is that they were used as hair-ornaments.

Rings from 'late' contexts

It is worth noting that the two silver rings which come from late graves Nos 3406 and 5604, can be readily differentiated from the Second Intermediate Period examples by virtue of their greater size. Both are approximately 4 cm in diameter, placing them at the lower end of TALLON's (1987: 117) category of 'bracelets'. In fact, the very different style of the

later rings serves to highlight the stereotypical nature of the rings occurring within Second Intermediate Period graves (Table 9).

Note: in Table 9 the number of graves has been used in preference to total number of rings, as the latter figure would be distorted because of a small number of graves with several interments which contained large groups of earrings.

Copper-base rings

Copper rings rarely occur in Second Intermediate Period grave contexts, with most coming from settlement contexts. The virtual absence among the copper specimens of instances of finger-rings, scarab-rings, or sets of earrings suggests that there was a clear sense of what was, and was not, appropriate for production in each metal. The presence of several copper spiral rings is interesting, as other types of ring from the site are usually made from silver. No. 4945 forms the only example of a copper earring. It came from a grave that contained a child burial and may represent a substitute for a silver earring. Copper ring No. 432 was not found in a tomb, but in a related pit which contained donkey offerings. It is larger than the other copper rings, and may represent a piece of harness equipment.

General trends

An impressionistic assessment suggests that, as in the case of pins, rings are relatively more frequent in graves assigned to strata E/3 and later, than those from the earlier phases of occupation. This is in line with the picture in Palestine, where there is an increase in the percentage of graves containing 'adornments' (HALLOTE 1995: 110, fig. 6). The clear preference for precious metal, and silver in particular, as the material for ear- and finger-rings makes an interesting contrast to the pins, which are mostly made of copper-base. Moreover, the existence of a specific type of small earring, which shows a strong association with infant burials, has interesting implications.

Few gold rings were recovered, although the presence of one or two instances in the palace tombs in Area F/I hints at the high level of wealth which these graves must once have contained. Bracelet No. 5591 mounted a fine amethyst stone, which would appear to indicate that Nile Delta elites at that point had access to a supply of a raw material which originated in Wadi el-Huda. This wadi was located in the eastern Desert south-east of Aswan, the primary area for amethyst mining from the eleventh Dynasty to the end of the Middle Kingdom (SHAW and

ROBERTSON 1993: 94), and one which was located well to the south of Thebes.

3.11.3.2 Rings: discussion and comparanda

Silver penannular earrings have a long history in the Levant (MUSCHE 1992), with instances documented at Byblos in late fourth millennium BC contexts (DUNAND 1973: 320, pl. 193). A good number of silver and copper-base penannular earrings occur in late third millennium BC contexts at Mari, although gold examples occur in a different form (JEAN-MARIE 1999: 22).

In contrast to the form's long history in western Asia, earrings were introduced to Egypt relatively late, first becoming popular during the eighteenth Dynasty (*Boston Museum of Fine Arts* 1982: 227). Some scholars, on the basis of the examples from Nubia, have seen their adoption as the result of influence from the south (ANDREWS 1981: 44; BAKR 1977), while others have preferred a Near Eastern origin (WILKINSON 1971: 76). ALDRED (1971: 142) for example, attributed their dissemination within Egypt to the Hyksos. The evidence from Tell el-Dab'a, where earrings are present from an early point in the sequence, supports the view that the form was introduced to Egypt through west Asian contacts, presumably mediated through practices in the Nile Delta. A northern origin is supported by the apparent preference for silver as a material, as this would most likely have come either from Anatolia or possibly from Lavrion in Greece.

ANDREWS (1990: 111) suggested that the adoption of rings from the Hyksos was unlikely, as this would represent an 'aping of unpopular overlords'. Rather, she argued that the wearing of earrings was inspired by the Nubian Pan Grave people who had *assisted* the Egyptians against the Asiatics. However, this position appears rather simplistic. Furthermore, it undervalues the subtle, flexible processes involved in the transmission and appropriation of material culture between communities (JONES 1997). Moreover, in light of the new data from Tell el-Dab'a, the onus is on those favouring a Nubian origin to demonstrate that the presence of earrings in Pan Grave and Kerma burials actually *predates* their appearance in the Delta. The fact that the majority of earrings from Pan Graves were made from silver (BAKR 1977: 60), a metal almost certainly linked to the Mediterranean world, and which had no particular associations with Nubia, might well suggest that earrings were adopted for use in Pan Grave and Nubian burials as a result of contact with Delta societies.

New Kingdom earrings, as documented by

ANDREWS (1990: 111–13, pls. 91–4) and WILKINSON (1971: 121, figs. 52–4), were frequently of rather different forms than those represented at Tell el-Dab'a. This suggests that the practice of earring wearing, whatever its source may have been, was rapidly re-situated within a specifically Egyptian social and ideological context. At Tell el-Dab'a, earrings have been found only with child burials and adult females (Chapter 5). ANDREWS (1990: 109) notes, however, that during the New Kingdom earrings were first worn by women and later adopted by men, in particular senior bureaucrats. This shift in the sex-association of earrings, the clear typological differences between those from Tell el-Dab'a and Egyptian New Kingdom forms which are frequently of more elaborate design (ANDREWS 1990: 111–13, pls. 91–4; WILKINSON 1971: 212, figs. 52–4), and the lack of an amuletic function (*Boston Museum of Fine Arts* 1982: 227), are all consistent with the appropriation of an item of Delta material culture with clear female associations, and its gradual recontextualization within an Egyptian ideological universe during the New Kingdom.

Finger-rings

Finger-rings designed to mount scarabs appeared during the Twelfth Dynasty (ANDREWS 1990: 24; WILKINSON 1971: 76–7), and were usually worn on the third finger of the left hand. Scarabs remained the predominant decoration for finger-rings well into the New Kingdom period. The different ways of attaching the scarab to the ring are described by WILKINSON (1971: 244). One of these ways in particular, the use of twisted wire to decorate the mount and cover the end of the ring and the mounting link, is well represented at Tell el-Dab'a. The solid cast signet rings bearing the royal cartouche on the bezel, which appeared during the New Kingdom (ALDRED 1971: 20; WILKINSON 1971: 244), have not been reported from Tell el-Dab'a.

Not all scarabs were mounted on metal rings however. A cord made from perishable fibres could also be used (ANDREWS 1990: 163). This may have resulted in 'loose' single scarabs appearing in tombs, as seen in the case of A/II 1/12 Gr. 5, where a scarab was found lying close to the left hand of the burial (BIETAK 1991a: 54, Abb. 25). A similar situation was also recorded in the case of child burial A/II m/10 Gr. 9 (BIETAK 1991a: 71). The absence of a metal ring should therefore not be taken as an indication that a particular burial was not equipped with a scarab worn on the fingers. Rather, it may simply indicate that the ring was made of perishable material. When the data is published it will be interesting to compare

the relative proportion of scarabs worn on metal as opposed to perishable bands, as this may provide some insight into the importance that was attached to the wearing of metal rings.

What is particularly striking about the Tell el-Dab'a material, however, is the clear preference for silver rings. As the scarab is a distinctly Egyptian object, albeit one which was later adopted in the Levant, the evidence points towards its incorporation into a Levantine tradition of silver ring manufacture, rather than its wholesale adoption from Egypt. The scarab-bearing finger-ring may therefore represent an amalgam of a genuine Egyptian practice with the Levantine tradition of ring-production. One possibility is that the adoption of this practice was due to an association between scarabs and status, resulting from the use of official scarabs to denote holders of high office in the Egyptian administration.

Copper spiral rings

ÅSTRÖM (1972: 150) notes the presence on Cyprus of a number of circular (often termed 'spiral') rings with overlapping terminals, interpreted as hair-ornaments. Numerous instances occur in Middle Cypriot and early Late Cypriot graves (CATLING 1964: 74; WEINSTEIN-BALTHAZAR 1990: 420, tables 178, 179). These rings occur in copper-base and silver (although silver finds are relatively rare during the Middle Cypriot period as a whole), and occasionally gold, and provide parallels for the Tell el-Dab'a examples.

The majority of Cretan rings listed by BRANIGAN (1974: 44–5) are of annular, rather than penannular form, and are classed by him as finger-rings. These rings are rare in Cyprus. While some are made from silver, a significant proportion of the listed Aegean examples are described as being made from gold (BRANIGAN 1974: 188–9). Crete has also produced a relatively wide range of earring types, in contrast to the relative simplicity of the types found at Tell el-Dab'a. The evidence therefore suggests that just like weaponry, the jewellery production of Crete was not particularly closely related to that of the Nile Delta.

3.11.3.3 Bracelets and torques

The three second millennium BC bracelets from Tell el-Dab'a came from graves in Area F/I. It is noteworthy that examples occur in gold, silver and copper-base, that all come from what are clearly elite graves, and are concentrated in the early phases of occupation at the site. The simple silver bracelet from F/I o/20-Grave 17 has a general parallel, in copper-base, in a MBA tomb at Leb'a in southern Lebanon (GUIGES 1937: 39, fig. 4f).

One striking characteristic of burials at Tell el-Dab'a dating to the earlier second millennium BC is the apparent absence of torques, large metal rings made using a sub-circular metal rod, the ends of which were hammered flat and then curled around to form two loops, and which were designed to be worn around the neck. Examples are depicted around the necks of metal figurines from EBA Tell al-Judeideh (BRAIDWOOD and BRAIDWOOD 1960: 303–13), and second millennium BC Ras Shamra (SCHAEFFER 1949: pls. XVII–XIX), and Megiddo (LOUD 1948: pls. 233, 5, 234, 13–14, 253, 23). The association between torques and metal votive figurines appears to confirm a connection between torques and the visible marking of status.

Several silver torques, and approximately forty copper-base examples came from the Monet Jar at Byblos (MONTET 1928: 123, pl. 67, 591–4, pl. 70, 595; TUFNELL and WARD 1966: 208–11, fig. 8, 198–206). Moreover, both torques and bracelets are documented in early second millennium BC graves at sites such as Ras Shamra (SCHAEFFER 1948, fig. 79a: 1978: 476, figs. 8.3, 12, 13) and Tomb GVI at Hama (FUGMANN 1958: pl. 10). Like so many other features of Levantine MBA metalwork, the ultimate origin of torques appears to lie in the metal-working traditions of the EB IV period north-western Syria and the Euphrates Valley, where several examples are now documented (PHILIP n.d.; PORTER 2002: 21; SCHWARTZ *et al.* 2003: 333, fig. 17; WOOLLEY 1914: pl. XXIc). Perhaps their absence at Tell el-Dab'a is attributable to the large-scale robbing of the rich graves around the Area F/I palace where finds of this kind might have been most heavily concentrated.

In Egypt, while examples of torques are very rare before the Coptic period (TALLON 1987: 117), they are not unknown. Several have been recovered from later Middle Kingdom and Second Intermediate Period graves in Upper Egypt. A silver example was found in a grave (Tomb 1008) at Abydos (FRANKFORT 1930: 219) and a fragment of another in an otherwise poorly documented tomb at Ballas (QUIBELL 1896: 8, pl. LVIII, tomb Q, 188). Two additional examples, both in silver, occurred in Pan Graves at Mostagedda (ANDREWS 1990: pl. 49b; BRUNTON 1937: 118, pl. LXXV, tombs 3120 and 3170). In neither case were these associated with tombs containing weapons. The presence of objects of west Asian style, made from silver, appears to indicate a desire to adopt aspects of Levantine modes of expression, in which case the presence of such material in Pan Graves is of particular interest.

3.11.4 Jewellery

Claw pendant

One copper-base claw pendant occurred as a surface find at Tell el-Dab'a. Stone claw-shaped amulets occur from the Pre-Dynastic period onwards. Generally thought to represent a leopard's claw, pendants of this form were a particular feature of women's anklets during the Middle Kingdom (ALDRED 1971: 160, pl. 12, 36), and examples from Middle Kingdom burials occur in gold, silver, electrum, and carnelian (ANDREWS 1994: 66). While this style of pendant may represent an Egyptian creation, it is worth noting that examples are associated with EB IV burials at Jerablus Tahtani in north Syria (PHILIP n.d.). Like mirrors, claw pendants may represent objects which, by the second millennium BC, were in wide use throughout the ancient Near East.

3.12 TOOLS

3.12.1 Harpoons

The discovery at the site of both limestone and steatite moulds (Nos. 3111b and 7413) for casting bilaterally barbed metal harpoons, demonstrates that these were produced locally. The present author is not aware of any metal harpoons from MBA contexts in Syria-Palestine. Moreover, the Nile has a greater annual flow, and a wider range of both fish and aquatic mammals than the smaller rivers of the Levant coastal zone, and so it is likely that harpoons were of Egyptian origin. That this is the case is reinforced by the presence of an unpublished harpoon in a Middle Kingdom context in Area H/III.

Harpoons are present in strata G through to D/3. Given the small size of the sample, and the presence of moulds on site, they are likely to have been in production throughout most of the occupation at Tell el-Dab'a. It is interesting that they were apparently still in circulation, and perhaps even in production, as late as stratum D/3.

These metal harpoons are quite different from the two-pronged fish-spears discussed by ALTENMÜLLER (1967: 20–3). While bone harpoons do not appear to be very common after the First Dynasty, metal versions would have offered the extra strength and holding power required for the hunting of large animals such as crocodiles, and in particular hippopotami (HELCK and OTTO 1975: 1011–12; BATES 1917: 236). The latter also suggests that, unlike fishing spears, these harpoons were designed only to stick into and tire the animal, and were never intended for use with a retrieving line. The use of such a line would have

been rather unwise in the case of an injured hippopotamus.

While these animals were hunted for sport, the hunting itself was associated with status through the close relationship between the successful hunter and the warrior; note, for example, the depiction of hippopotamus hunting in Old Kingdom royal tombs (DECKER 1992: 148–9), and its subsequent appearance in those of officials (SAVE-SÖDERBERGH 1953: 5–14). The presence of harpoons at Tell el-Dab'a is readily explained by the fact that despite a decline in the hippopotamus populations in much of the Nile Valley, the Delta contained a viable hippopotamus population as late as the New Kingdom (HELCK *et al.* 1975: IV, 502). In addition, there is every reason to believe that this traditionally prestigious activity would have appealed to Delta elites, whose west Asian background would have rendered them predisposed to view hunting as an integral aspect of high-status activity. However, BOESSNECK and VON DEN DRIESCH (1992: 33) believe that hippopotami may have been an important meat source for the site's inhabitants, and note that the relatively small quantity of faunal evidence may be attributable to the off-site butchering which would have been required to facilitate transport of meat from such large animals.

That said, the absence of harpoons from otherwise well-equipped graves, and their presence in two cases in what appear to be deliberate threshold deposits, one in a temple, might point to harpoons as having a significance beyond a simple association with elite hunting. Although this is not the place to speculate upon Egyptian religious symbolism, let alone that of the Delta community, the mythical accounts of Horus harpooning Seth in the form of a hippopotamus, combined with the well-known associations between the god Seth and Avaris (SAVE-SÖDERBERGH 1953: 35–44), might provide the context for an altogether more complex web of meanings.

3.12.2 Other tool types

The majority of the tools listed in Table 10 are of simple, and long-lived forms such as points, punches, hooks, chisels, needles, and various cutting implements. Without a larger sample and more detailed studies it is difficult to assign individual tools to more specific functions. In the absence of up-to-date and comprehensive studies of Bronze Age tools from either Egypt or the Levant, there is little value in the listing of isolated parallels. The discussion below will

therefore focus upon context and chronology; comments on specific classes are provided in Chapter 2.

The five objects which appear to be associated with graves in some way, all come from disturbed or mixed deposits. No. 4199 is a leather cutter, and is believed to come from earlier deposits cut by a grave pit. No. 5587 is a tool from the secondary fill of a grave, and is probably not associated with the burial. No. 4279 is a tool in a secondary context near the east end of a robbed grave. No. 7143 is a leather cutter that comes from Pit 18, which contains donkey offerings. It is uncertain whether this tool represents disturbed material incorporated within the pit fill, or whether it was associated with the donkey interments. No. 7308 is a point and comes from a disturbed area just east of a grave.

Tools are present in a range of secondary contexts, predominantly in open areas, and show no obvious concentration in particular strata. They did not form a significant component of the grave repertoire, and the sample available is likely to represent the result of circumstantial artefact loss over time. There is evidence to suggest that the sample of tools recovered is unlikely to be fully representative of that which was in use at the site. For instance, the absence of examples of EVELY's (1993) Type 3 chisel, a common and simple form with straight sides and tapering towards a narrow butt, is in contrast to the presence of moulds bearing matrices for their production (e.g. No. 3110). This surely points to a significant degree of recycling, and suggests that the corpus of artefacts in use may have been rather different to that which has been preserved. A fuller consideration of the range of tools present (and absent) at the site is given in Chapter 4, when the range of tools recovered is compared with the evidence for artefact production as represented by casting moulds.

Tool type	Settlement	Grave
Harpoon	4	0
Hook	3	0
Chisel	5	1 (in grave pit)
Point	4	0
Needle	3	0
'Tool'	8	5 (see note below)

Table 10 Contextual analysis of main tool categories